VEHICLE MILES TRAVELED MITIGATION PROGRAM

PUBLIC REVIEW DRAFT

PROGRAM ENVIRONMENTAL IMPACT REPORT

AUGUST 2022

PREPARED FOR

LANCASTER

PREPARED BY

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PROGRAM ENVIRONMENTAL IMPACT REPORT

Vehicle Miles Traveled Mitigation Program

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1.0 Executive Summary

1.0 EXECUTIVE SUMMARY

1.1 PROJECT LOCATION

The City of Lancaster (City) is located in the Antelope Valley in northern Los Angeles County (County), approximately 70 miles north of downtown Los Angeles. Unincorporated Los Angeles County surrounds the City on all sides. Additional surrounding jurisdictions include unincorporated Kern County further to the north and the City of Palmdale to the south.

The Antelope Valley Freeway (State Route 14) provides primary regional connectivity between the Antelope Valley and Greater Los Angeles area. Various arterials in the City also serve regional functions. Avenue D (State Route 138) extends west from SR-14, and connects to the Golden State Freeway (Interstate 5), and extends east from the City of Palmdale, connecting with Interstate 15. Sierra Highway links Lancaster with the community of Rosamond to the north and the City of Palmdale to the south.

1.2 PROJECT SUMMARY

The proposed VMT Mitigation Program (from herein referred to as the "program" or "project") aims to establish mitigation for projects that exceed the City's vehicle miles traveled (VMT) thresholds in the form of a mitigation impact fee. The program identifies relevant transportation demand management (TDM) strategies and VMT-reducing projects within the City to be funded by the impact fee. These funds would be utilized to fund active transportation infrastructure projects in the City to help the City meet its VMT reduction goals. The overall intent of the program is to streamline the Senate Bill (SB) 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT.

The following existing City planning documents were reviewed to identify unfunded, planned infrastructure improvement projects within Lancaster that contribute towards reducing Citywide VMT and could be funded by the proposed program:

- *Master Plan of Complete Streets* (June 26, 2018);
- *Lancaster TOD Zones* (adopted February 10, 2015, updated January 2020);
- *Safer Streets Action Plan* (January 2020);
- *Safe Routes to School Master Plan* (November 2016); and
- *Master Plan of Trails and Bikeways* (March 2012).

The VMT-reducing improvements could potentially be constructed utilizing funds collected under the proposed VMT Mitigation Program. These projects would be subject to future CEQA analysis on a project-by-project basis as they are proposed and as the extent of impacts become known through the design process. However, these facilities may result in impacts to the environment, and thus are the subject of the programmatic analysis within this EIR.

1.3 PROJECT GOALS AND OBJECTIVES

Pursuant to Section 15124(b) of the *CEQA Guidelines*, the EIR project description must include "[a] statement of objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project." The proposed project objectives are outlined below:

1. Streamline the SB 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant VMT impacts.

2. Identify funding for future TDM strategies and VMT-reducing projects within Lancaster to help reduce Citywide total VMT.

3. Contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community with active, healthy, and livable spaces.

1.4 ENVIRONMENTAL ISSUES/MITIGATION SUMMARY

The following summarizes the impacts, mitigation measures, and significance after mitigation analyzed in Section 5.0, *Environmental Analysis*, of this EIR. Refer to the appropriate EIR Section for detailed information.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
5.1	**Land Use and Planning**		
	LU-1: The proposed project could conflict with applicable General Plan policies.	No mitigation measures are required.	Less Than Significant Impact.
	LU-2: The proposed project could conflict with Lancaster Municipal Code standards or regulations.	No mitigation measures are required.	Less Than Significant Impact.
	LU-3: The proposed project could conflict with SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy goals.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The proposed project, combined with other related projects, could conflict with land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect.	No mitigation measures are required.	Less Than Significant Impact.
5.2	**Aesthetics/Light and Glare**		
	AES-1: Project implementation could have a substantial adverse impact on a scenic vista.	No mitigation measures are required.	Less Than Significant Impact.
	AES-2: Implementation of the proposed project could conflict with applicable zoning and other regulations governing scenic quality.	No mitigation measures are required.	Less Than Significant Impact.
	AES-3: Implementation of the proposed project could create new sources of light and glare, which could adversely affect day or nighttime views.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The project combined with other cumulative projects could result in significant impacts to scenic vistas.	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	Cumulative Impacts: The project combined with other cumulative projects could conflict with applicable zoning and other regulations governing scenic quality.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The project combined with other cumulative projects could create a new source of substantial light or glare, which could adversely affect day or nighttime views in the City.	No mitigation measures are required.	Less Than Significant Impact.
5.3	**Biological Resources**		
	BIO-1: Future transportation improvements in accordance with the proposed project could potentially result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	BIO-1 Transportation improvements funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and not exempt from CEQA), and with the potential to reduce or eliminate habitat for native plant and wildlife species or sensitive habitats, as determined by the City of Lancaster Development Services Department, Community Development Division, shall provide a Biological Resources Assessment prepared by a qualified biologist for review and approval by the Community Development Division. The assessment shall include biological field survey(s) of the project site to characterize the extent and quality of habitat that would be impacted by development. Surveys shall be conducted by qualified biologists and/or botanists in accordance with California Department of Fish and Wildlife and/or United States Fish and Wildlife Services survey protocols for target species. If no special status/sensitive species, sensitive habitats/natural communities, or Federally protected wetlands are observed during the field survey, then no further mitigation will be required. If biological resources are documented on the project site, the project proponent shall comply with the applicable requirements of the regulatory agencies and shall apply mitigation determined through the agency permitting process.	Less Than Significant Impact With Mitigation Incorporated.
	BIO-2: Future transportation improvements funded by the proposed project could potentially have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
	BIO-3: The project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
	BIO-4: The project could interfere substantially with the movement of native resident or	BIO-2 A pre-construction nesting bird clearance survey shall be conducted by a qualified	Less Than Significant Impact With

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.	biologist no more than fourteen (14) days prior to the start of any vegetation removal or ground disturbing activities associated with a transportation improvement project. The survey shall be conducted by a qualified biologist and cover all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. Further, if an active bird nest is found, the qualified biologist should identify the specific bird species and establish a "no-disturbance" buffer around the active nest to avoid potential direct and indirect impacts. It is further recommended that the qualified biologist periodically monitor any active bird nests to determine if project-related activities disturb the birds and if the "no disturbance" buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the "no-disturbance" buffer may occur following an additional survey by the qualified biologist to search for any new nests in the restricted area.	Mitigation Incorporated.
	BIO-5: The project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The proposed program, in conjunction with cumulative development, could result in cumulatively considerable impacts to candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: The project, in conjunction with cumulative projects, could result in cumulatively considerable impacts to riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: The project, in conjunction with cumulative projects, could result in cumulatively considerable impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: The project, in conjunction with cumulative projects, could result in cumulatively considerable impacts to the movement of native resident or migratory fish or wildlife species or with established native	Refer to Mitigation Measure BIO-2.	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	resident or migrator wildlife corridors, or impede the use of wildlife nursery sites.		
	Cumulative Impacts: The project, in conjunction with cumulative projects, could result in cumulatively considerable impacts to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No mitigation measures are required.	Less Than Significant Impact.
5.4	**Tribal and Cultural Resources**		
	CUL-1: The project could cause a significant impact to a historical resource.	CUL-1 To ensure identification and preservation of potentially historic resources (as defined by CEQA Guidelines Section 15064.5 as a resource listed in, eligible for listing in, or listing in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register), each transportation improvement funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be conditioned as follows: prior to any construction activities that could impact potential or previously identified historical resources, the project proponent shall provide a historical resources assessment performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history (as defined in 48 Code of Federal Regulations 44716) to the City of Lancaster Planning Department for review and approval. The historical resources assessment shall include a records search at the South Central Coastal Information Center (SCCIC) and a survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. If a historical resource is identified on-site, the resource shall be avoided to the extent feasible. If relocation, rehabilitation, or alteration of a historical resource is required, the project proponent shall utilize the Secretary of the Interior's Standards for the Treatment of Historic Properties to the maximum extent feasible to ensure the historical significance of the resource is not impaired. If demolition or significant alteration of a historical resource is required, the resource shall be evaluated, and/or designated in the NRHP, CRHR, or local register, and recordation shall take the form of Historic American Buildings Survey (HABS),	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards. Recordation shall meet the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering, which defines the products acceptable for inclusion in the HABS/HAER/HALS collection at the Library of Congress. The specific scope and details of documentation shall be developed at the project level in coordination with the City of Lancaster Planning Department and performed prior to the first issuance of any demolition, building, or grading permits.	
	CUL-2: The project could cause a significant impact to an archaeological resource.	CUL-2 To ensure identification and preservation of archaeological resources within the City of Lancaster, each transportation improvement funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be screened by the City of Lancaster Planning Department to determine whether a Cultural Resources Assessment is required. Screening shall consider the type of project and whether ground disturbances will occur. Ground disturbances include activities such as grading, excavation, trenching, boring, or demolition that extend below the current grade. If there will be no ground disturbance, then a Cultural Resources Assessment shall not be required. If there will be ground disturbances, prior to issuance of any permits required to conduct ground disturbing activities, the City may require a Cultural Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology. The Cultural Resources Assessment shall include a California Historical Resources Information System (CHRIS) records search conducted through the South Central Coastal Information Center (SCCIC) and Sacred Land Files (SLF) search through the Native American Heritage Commission (NAHC), review of historical maps, and a Phase I (intensive) pedestrian survey to assess the likelihood for buried archaeological resources to occur. The Cultural Resources Assessment shall meet or exceed standards in the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR):	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		Recommended Contents and Format (1990) and Guidelines for Archaeological Research Designs (1991). CUL-3 In the event that cultural resources are unearthed during excavation and grading activities of any future transportation improvement project funded by the proposed program, the construction contractor shall cease all earth-disturbing activities within a 100-meter radius of the find and the project proponent shall retain a qualified archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology to evaluate the significance of the finding and appropriate course of action. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. After the find has been appropriately mitigated, work in the area may resume.	
	CUL-3: The project could cause a significant impact to a tribal cultural resource.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future transportation improvements in accordance with the proposed project and cumulative development could result in cumulatively considerable impacts to a historical resource.	Refer to Mitigation Measure CUL-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Implementation of improvements in accordance with the project and other cumulative projects could result in cumulatively considerable impacts to an archaeological resource.	Refer to Mitigation Measures CUL-2 and CUL-3.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Future transportation improvements in accordance with the proposed project and cumulative development could result in cumulatively considerable impacts to a tribal cultural resource.	No mitigation measures are required.	Less Than Significant Impact.
5.5	**Geology and Soils**		
	GEO-1: Future transportation improvements funded by the proposed project could expose people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	No mitigation measures are required.	Less Than Significant Impact.
	GEO-2: Project implementation could expose people and structures to substantial adverse effects, including the risk of loss, injury, or death involving liquefaction.	No mitigation measures are required.	Less Than Significant Impact.
	GEO-3: Project implementation could result in substantial soil erosion or loss of topsoil.	No mitigation measures are required.	Less Than Significant Impact.
	GEO-4: Future transportation improvements could be located on unstable or expansive soils and potentially result in geologic hazards.	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	GEO-5: Project implementation could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	GEO-1 To ensure identification and preservation of paleontological resources within the City of Lancaster, each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be screened by the City of Lancaster Development Services Department, Community Development Division to determine whether a Paleontological Resources Assessment is required. Screening shall consider the type of project and whether ground disturbances will occur. Ground disturbances include activities such as grading, excavation, trenching, boring, or demolition that extend below the current grade. If there will be no ground disturbance, then a Paleontological Resources Assessment shall not be required. If there will be ground disturbances, prior to issuance of any permits required to conduct ground disturbing activities, the City may require a Paleontological Resources Assessment be prepared by a qualified paleontologist, defined as a paleontologist who meets the Society of Society of Vertebrate Paleontology (SVP) standards for a Principal Investigator or Project Paleontologist. The Paleontological Resources Assessment shall include and take into account project-specific and local geologic mapping, geotechnical data, and paleontological records search. The Paleontological Resources Assessment shall adhere to and incorporate the performance standards and practices from the current SVP Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. The qualified paleontologist shall submit the Paleontological Resources Assessment to the City of Lancaster Development Services Department, Community Development Division for review and approval before issuance of a grading permit.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: The proposed project, in conjunction with cumulative development, could expose people or structures to potential substantial adverse effects involving geology and soils and could impact unknown paleontological resources.	Refer to Mitigation Measure GEO-1.	Less Than Significant Impact With Mitigation Incorporated.
5.6	**Hydrology and Water Quality**		
	HWQ-1: Future improvements associated with the proposed project could violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.	No mitigation measures are required.	Less Than Significant Impact.
	HWQ-2: Future improvements associated with the proposed project could substantially alter the	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	existing drainage patterns of the site or area, or substantially increase the rate or amount of surface runoff, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.		
	Cumulative Impacts: Future improvements, combined with other related cumulative projects, could violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future improvements, combined with other related cumulative projects, could substantially alter the existing drainage patterns of the site or area, or substantially increase the rate or amount of surface runoff, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.	No mitigation measures are required.	Less Than Significant Impact.
5.7	**Hazards and Hazardous Materials**		
	HAZ-1: Short-term construction activities associated with future improvements could create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the routine transport, use, or disposal of hazardous materials.	HAZ-1 If unknown wastes or suspect materials are discovered during construction activities associated with improvements funded by the VMT Mitigation Program that are believed to involve hazardous waste or materials, the construction contractor shall implement the following: • Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area; • Notify the City of Lancaster Development Services Director/City Engineer; • Secure the area as directed by the Development Services Director/City Engineer; and • Notify the implementing agency's Hazardous Waste/Materials Coordinator (e.g., Los Angeles County Fire Department, Lahontan Regional Water Quality Control Board, and/or Department of Toxic Substances Control, as applicable). The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.	Less Than Significant Impact With Mitigation Incorporated.
	HAZ-2: Long-term operational activities associated with future improvements could create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the routine transport, use, or disposal of hazardous materials.	No mitigation measures are required.	Less Than Significant Impact.
	HAZ-3: Future improvements associated with implementation of the proposed project could be located on a hazardous material sites pursuant to Government Code Section 65962.5 and	Refer to Mitigation Measure HAZ-1.	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	create a significant hazard to the public or the environment.		
	Cumulative Impacts: Short-term construction activities associated with future improvements, combined with other related projects, could result in cumulatively considerable hazards to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the routine transport, use, or disposal of hazardous materials.	Refer to Mitigation Measure HAZ-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Long-term operational activities associated with future improvements, combined with other related projects, could result in cumulatively considerable hazards to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the routine transport, use, or disposal of hazardous materials.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future improvements could be located on a hazardous material sites pursuant to Government Code Section 65962.5 and result in cumulatively considerable impacts to the public or the environment.	Refer to Mitigation Measure HAZ-1.	Less Than Significant Impact With Mitigation Incorporated.
5.8	**Transportation**		
	TRA-1: Project implementation could conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	No mitigation measures are required.	Less Than Significant Impact.
	TRA-2: Project implementation could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	No feasible mitigation measures are available.	Significant and Unavoidable Impact.
	TRA-3: Project implementation could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	No mitigation measures are required.	Less Than Significant Impact.
	TRA-4: Project implementation could result in inadequate emergency access.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The proposed project, in conjunction with cumulative development, could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: The proposed project, in conjunction with cumulative development, could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	No feasible mitigation measures are available.	Significant and Unavoidable Impact.
	Cumulative Impacts: The proposed project, in conjunction with cumulative development, could	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or introduce incompatible uses (e.g., farm equipment).		
	Cumulative Impacts: The proposed project, in conjunction with cumulative development, could result in inadequate emergency access.	No mitigation measures are required.	Less Than Significant Impact.
5.9	**Air Quality**		
	AQ-1: Short-term construction activities associated with the proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.	AQ-1 Prior to issuance of any grading permit for a transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt under CEQA), the City of Lancaster Development Services Department, Community Development Division shall confirm that the Grading Plan, Construction Plans, and specifications require that ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications. AQ-2 Each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt under CEQA) shall submit a Construction Management Plan to the City Engineer prior to the issuance of a grading permit. To reduce traffic congestion during temporary construction activities, a Traffic Control Plan shall include the following, as deemed necessary by the City Traffic Engineer: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow. Traffic control devices included in the traffic control plan shall be developed in compliance with the requirements of the most current standards. The Construction Management Plan shall also include construction phasing, personnel parking, and material storage areas to reduce traffic congestion.	Less Than Significant Impact With Mitigation Incorporated.
	AQ-2: Implementation of the proposed project could result in increased impacts pertaining to operational air emissions.	No mitigation measures are required.	No Impact.
	AQ-3: Development associated with implementation of the proposed project could	Refer to Mitigation Measures AQ-1 and AQ-2, and:	Less Than Significant Impact With

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	result in localized emissions impacts or expose sensitive receptors to substantial pollutant concentrations.	AQ-3 Prior to ground disturbance activities associated with the VMT-reducing improvements funded by the proposed program, the project operator shall provide evidence to the Director of Community Development that the project operator and/or construction manager has developed a "Valley Fever Training Handout" training and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s), and schedule shall be submitted to the Director of Community Development within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Director of Community Development regarding the "Valley Fever Training Handout" and session(s) shall include the following: • A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session. • Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever. • Training on methods that may help prevent Valley Fever infection. • A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Where respirators are required, the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the Director of Community Development. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs. The project operator also shall consult with the Los Angeles County Public Health to develop a Valley Fever Dust Management Plan (Plan) that addresses the potential presence of the Coccidioides spore and mitigates for the potential for Coccidioidomycosis (Valley Fever). Prior to issuance of permits, the project operator shall submit the Plan to the Los Angeles County Public Health for review and approval. The Plan shall	Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate safety procedures that shall be implemented, as needed, to minimize personnel and public exposure to potential Coccidioides spores. Measures in the Plan shall include the following: • Provide High Efficiency Particulate (HEP)-filters for heavy equipment equipped with factory enclosed cabs capable of accepting the filters. Require contractors utilizing applicable heavy equipment to furnish proof of worker training on proper use of applicable heavy equipment cabs (e.g., turning on the air conditioning prior to using the equipment). • Provide communication methods, such as two-way radios, for use in enclosed cabs. • Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with minimum N-95 protection factor for use during worker collocation with surface disturbance activities, as required per the hazard assessment process. • Require employees to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144). • Provide separate, clean eating areas with hand-washing facilities. • Install equipment inspection stations at each construction equipment access/egress point. Examine construction vehicles and equipment for excess soil material and clean, as necessary, before equipment is moved off-site. • Train workers to recognize the symptoms of Valley Fever, and to promptly report suspected symptoms of work-related Valley Fever to a supervisor. • Work with a medical professional to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever. • Work with a medical professional, in consultation with the Los Angeles County Public Health, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site and include the following information on Valley Fever: what are the potential	

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		sources/causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure is available. Prior to construction permit issuance, this handout shall have been created by the project operator and reviewed by the project operator and reviewed by the Director of Community Development. No less than 30 days prior to any work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries. • When possible, position workers upwind or crosswind when digging a trench or performing other soil-disturbing tasks. • Prohibit smoking at the worksite outside of designated smoking areas; designated smoking areas shall be equipped with handwashing facilities. • Post warnings on-site and consider limiting access to visitors, especially those without adequate training and respiratory protection. • Audit and enforce compliance with relevant Cal/OSHA health and safety standards on the job site.	
	AQ-4: Implementation of the proposed project could conflict with or obstruct implementation of the applicable air quality plan.	Refer to Mitigation Measures AQ-1 through AQ-3.	Less Than Significant Impact With Mitigation Incorporated.
	AQ-5: Implementation of the proposed project could create objectionable odors affecting a substantial number of people.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Short-term construction activities associated with the proposed project and other related cumulative projects, could result in increased air pollutant emission impacts or expose sensitive receptors to increased pollutant concentrations.	Refer to Mitigation Measures AQ-1 through AQ-3.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Implementation of the proposed project and other related cumulative projects could result in increased impacts pertaining to operational air emissions.	No mitigation measures are required.	No Impact.
	Cumulative Impacts: Implementation of the proposed project and cumulative projects could result in cumulatively considerable carbon monoxide hotspot impacts.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Implementation of the proposed project and related projects could result in cumulatively considerable inconsistencies with the applicable air quality plan.	Refer to Mitigation Measures AQ-1 through AQ-3.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Implementation of the proposed project and related projects could	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	result in cumulatively considerable odor impacts.		
5.10	**Greenhouse Gas Emissions**		
	GHG-1: Greenhouse gas emissions generated by the project could have a significant impact on global climate change.	No mitigation measures are required.	Less Than Significant Impact.
	GHG-2: Implementation of the proposed project could conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Greenhouse gas emissions generated by the project and other related cumulative projects could have a significant impact on global climate change.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Implementation of the proposed project and other related cumulative projects could conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact.
5.11	**Energy**		
	EN-1: The project could result in wasteful, inefficient, or unnecessary consumption of energy resources.	No mitigation measures are required.	Less Than Significant Impact.
	EN-2: The project could conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Implementation of the project and other cumulative projects could result in wasteful, inefficient, or unnecessary consumption of energy resources.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Implementation of the project and other cumulative projects could conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	No mitigation measures are required.	Less Than Significant Impact.
5.12	**Noise**		
	NOI-1: Construction-related activities within the project area could result in significant temporary noise impacts to nearby noise sensitive receivers.	NOI-1 Each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall ensure through contract specifications that construction best management practices (BMPs) are implemented by construction contractors to reduce construction noise levels. Contract specifications shall be included in construction documents, which shall be reviewed and approved by the City of Lancaster Development Services Director prior to issuance of a grading or building permit (whichever is issued first). BMPs to reduce construction noise levels may include, but are not limited to, the following: • Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		• Place noise-generating construction equipment and construction staging areas away from sensitive uses. • Construction activities shall occur between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday, pursuant to Section 8.24.040, *Loud, unnecessary and unusual noises prohibited-Construction and building*, of the Lancaster Municipal Code. • Implement noise attenuation measures, as needed, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes. • The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday). The haul route exhibit shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise. • Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party and the Development Services Director.	
	NOI-2: Project implementation could result in significant vibration impacts to nearby sensitive receptors and structures.	NOI-2 Prior to issuance of a grading permit, each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) with construction activities requiring operation of groundborne vibration generating equipment (i.e., vibratory compactor/roller, large bulldozer, caisson drilling, loaded trucks, and jackhammer) within 25 feet of an existing structure shall be required to prepare a project-specific vibration impact analysis to evaluate potential construction vibration impacts associated with the project, and to determine any	Less Than Significant Impact With Mitigation Incorporated.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		specific vibration control mechanisms that shall be incorporated into the project's construction bid documents to reduce such impacts. Contract specifications shall be included in construction documents, which shall be reviewed and approved by the City Engineer.	
	NOI-3: Future noise levels associated with implementation of the proposed project could result in a substantial permanent increase in ambient noise levels in the project vicinity and expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Construction-related activities within the project area could result in significant temporary noise impacts to nearby noise sensitive receivers.	Refer to Mitigation Measure NOI-1.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: Project implementation could result in significant vibration impacts to nearby sensitive receptors and structures.	Refer to Mitigation Measure NOI-2.	Less Than Significant Impact With Mitigation Incorporated.
	Cumulative Impacts: The proposed project could result in a significant increase in traffic and long-term stationary ambient noise levels.	No mitigation measures are required.	Less Than Significant Impact.
5.13	**Utilities and Service Systems**		
	USS-1: Project implementation could require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	No mitigation measures are required.	Less Than Significant Impact.
	USS-2: Project implementation could require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	No mitigation measures are required.	Less Than Significant Impact.
	USS-3: Future transportation improvements funded by the proposed project could result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.	No mitigation measures are required.	Less Than Significant Impact.
	USS-4: Future transportation improvements funded by the proposed project could be served by existing landfills and comply with federal, state, and local statutes and regulations related to solid waste.	No mitigation measures are required.	Less Than Significant Impact.
	USS-5: Future transportation improvements funded by the proposed project could result in the relocation or construction of new or expanded dry utility facilities, the construction of which could cause significant environmental effects.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Project implementation, in conjunction with cumulative development,	No mitigation measures are required.	Less Than Significant Impact.

EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	could result in cumulatively considerable impacts to water supply and distribution.		
	Cumulative Impacts: Future transportation improvements in accordance with the proposed program and cumulative development could result in cumulatively considerable impacts to wastewater treatment facilities.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future transportation improvements in accordance with the proposed program and cumulative development could increase demand for stormwater drainage facilities.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future transportation improvements in accordance with the proposed program and cumulative development could create increased demand for solid waste generation that could cause significant environmental impacts.	No mitigation measures are required.	Less Than Significant Impact.
	Cumulative Impacts: Future transportation improvements in accordance with the proposed program and cumulative development could create increased demand for dry utility services that could cause significant environmental impacts.	No mitigation measures are required.	Less Than Significant Impact.

1.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Project implementation would result in significant and unavoidable transportation impacts related to VMT.

- *VMT Impacts*. While the proposed program would fund and help implement TDM measures and VMT-reducing projects within the City at a program level, potentially significant VMT impacts could still occur. A future development project outside of the City's VMT efficient zones could pay the required impact fee, but their required fee may not fund the full cost of what is necessary to construct/complete an identified infrastructure improvement project. Therefore, it cannot be determined with certainty whether improvements would be implemented at the time a future project's VMT impacts occur (e.g., at project opening), and whether those impacts would be mitigated to a less than significant level. Additionally, the impact fee would only apply to VMT generated above the established threshold and thus, would not be able to fully fund all the identified improvements. Given the speculative timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements, no feasible mitigation is available at this time to reduce impacts to less than significant levels. As such, impacts in this regard would be significant and unavoidable.

- *Cumulative VMT Impacts*. The project would contribute towards cumulatively considerable significant VMT impacts when considered in conjunction with impacts associated with buildout of the General Plan. As stated, no feasible mitigation is available given the speculative

timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements. Therefore, cumulative impacts in this regard would similarly be significant and unavoidable.

1.6 SUMMARY OF PROJECT ALTERNATIVES

1.6.1 "NO PROJECT" ALTERNATIVE

In accordance with the *CEQA Guidelines*, "the no project analysis shall discuss the existing conditions …, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."[1] The *CEQA Guidelines* continue to state that "in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained."[2] The No Project Alternative includes a discussion and analysis of the existing baseline conditions at the time the Notice of Preparation was published on September 10, 2021. The No Project scenario is described and analyzed to enable the decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

Under the No Project Alternative, the VMT Mitigation Program would not be adopted. VMT-reducing transportation improvements currently identified in existing City planning documents as planned but unfunded would continue to be unfunded under this alternative. Thus, the identified improvements would not be funded and implemented, and the City would be required to separately identify funding from another source. Additionally, given that the program would not be adopted, a mitigation mechanism would not be established to assist future development with reducing potentially significant VMT impacts under CEQA. Similar to existing conditions, future developments that trigger significant VMT impacts under CEQA would be required to prepare Environmental Impact Reports and adopt statements of overriding consideration pursuant to CEQA Guidelines Section 15093, *Statement of Overriding Considerations*.

This alternative would reduce environmental impacts related to land use and planning, aesthetics/light and glare, biological resources, tribal and cultural resources, geology and soils, hydrology and water quality, hazards and hazardous materials, noise, and utilities and service systems. Impacts would be great with regards to transportation, air quality, greenhouse gas emissions, and energy.

The No Project Alternative would not achieve any of the project's basic objectives. Given that the VMT Mitigation Program would not be adopted, this alternative would not assist in streamlining the SB 743 process and would not provide a mitigation mechanism for development projects to reduce their potentially significant VMT related impacts (Objective No. 1). Additionally, given that the VMT Mitigation Program would not be adopted, no funds would be collected to pay for the identified TDM strategies and VMT-reducing projects. Thus, this alternative would not assist the City in identifying funding for such infrastructure improvements (Objective No. 2). Further, no program would be

[1] *CEQA Guidelines Section 15126.6(e)(2).*
[2] *CEQA Guidelines Section 15126.6(e)(3)(B).*

established that would contribute towards making Lancaster an active and multimodal community (Objective No. 3).

1.6.2 ALTERNATE MITIGATION FEE APPLICATION ALTERNATIVE

The VMT Mitigation Program, as currently proposed, requires non-exempt projects to pay a cost per VMT generated above the established threshold. The Alternate Mitigation Fee Calculation Alternative would apply the cost per VMT fee on all VMT generated by non-exempt projects, rather than only the VMT generated above the established threshold. The intent of this alternative is to increase the funds generated by the mitigation program to be able to fund and guarantee the implementation of a higher number of identified capital projects and programmatic TDM measures compared to the program as currently proposed and thus, further reduce Citywide VMT.

This alternative would result in similar environmental impacts to all topical areas with the exception of transportation, air quality, greenhouse gas emissions, energy, and noise, which would be reduced under this alternative.

Similar to the proposed program, the Alternate Mitigation Fee Application Alternative would help streamline the SB 743 compliance process for development projects. While the fee amount would be different under this alternative, payment of the fee towards the mitigation program would be a feasible mitigation option for developers to reduce their project's potentially significant VMT impacts. Thus, this alternative would meet Objective No. 1.

Compared to the proposed project, this alternative would theoretically provide more funding for future TDM strategies and VMT-reducing projects given that the fee would apply to all VMT generated by non-exempt projects rather than only the VMT generated above the established threshold. However, it is acknowledged that requiring developers to pay for all generated VMT would strongly discourage development from occurring within the City. Thus, in reality, this alternative would disincentivize development from occurring and therefore, reduce funding generated by the mitigation program compared to the proposed project. This alternative would meet Objective No. 2 but not to the extent of the proposed project.

The Alternate Mitigation Fee Application Alternative would establish a funding mechanism for future TDM strategies and VMT-reducing projects and thus, would contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community. However, as stated above, this alternative would likely discourage development from occurring given the high cost of the fee for non-exempt projects. Thus, this alternative would meet Objective No. 3 but not to the extent of the proposed project.

1.6.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative is the environmentally superior alternative, as it would avoid or lessen most of the project's environmental impacts. According to *CEQA Guidelines* Section 15126.6(e), "if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Accordingly, the Alternate

Mitigation Fee Application Alternative is considered environmentally superior to the proposed project. The Alternate Mitigation Fee Application Alternative would be environmentally superior to the proposed project for five topical areas (transportation, air quality, and greenhouse gas emissions, energy, and noise) and would result in similar environmental impacts to the remaining topical areas.

Similar to the proposed program, the Alternate Mitigation Fee Application Alternative would help streamline the SB 743 compliance process for development projects (Project Objective 1). While the fee amount would be different under this alternative, payment of the fee towards the mitigation program would be a feasible mitigation option for developers to reduce their project's potentially significant VMT impacts.

However, while this alternative would theoretically increase funds generated by the mitigation program, it is the City's understanding of its development community that the high cost of the fee would strongly discourage development from occurring within the City. Thus, in reality, by disincentivizing development from occurring, this alternative would reduce funding generated by the mitigation program compared to the proposed project and thus, would not meet Project Objectives 2 and 3 to the extent of the proposed project.

Overall, the Alternate Mitigation Fee Application Alternative would only meet one of the three project objectives.

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2.0 Introduction and Purpose

2.0 INTRODUCTION AND PURPOSE

2.1 PURPOSE OF THE EIR

The purpose of this Environmental Impact Report (EIR) is to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to avoid or lessen the project's potentially significant effects. This EIR addresses the project's environmental effects, in accordance with *CEQA Guidelines* Section 15161. As referenced in *CEQA Guidelines* Section 15121(a), the primary purposes of this EIR are to:

- Inform decision-makers and the public generally of the significant environmental effects of a project;
- Identify possible ways to minimize the significant effects of a project; and
- Describe reasonable alternatives to a project.

The mitigation measures that are specified shall be adopted as conditions of approval to minimize the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the project.

As Lead Agency, the City of Lancaster (which has the principal responsibility of processing and approving the project) and other public (i.e., responsible and trustee) agencies that may use this EIR in the decision-making or permit process will consider the information in this EIR, along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigatable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with *CEQA Guidelines* Section 15093(b), if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency must state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. *CEQA Guidelines* Section 15093 requires a "statement of overriding considerations" where the Lead Agency specifies the findings and public benefits for the project that outweigh the impacts.

This EIR analyzes the project's environmental effects to the degree of specificity appropriate to the current proposed actions, as required by *CEQA Guidelines* Section 15146. The analysis considers the activities associated with the project to determine the short- and long-term effects associated with their implementation. This EIR discusses the project's direct and indirect impacts, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

2.2 COMPLIANCE WITH CEQA

PUBLIC REVIEW OF THE DRAFT EIR

In accordance with *CEQA Guidelines* Sections 15087 and 15105, this Draft EIR will be circulated for a 45-day public review period. Interested agencies and members of the public are invited to comment in writing on the information contained in this document. Persons and agencies commenting are encouraged to provide information that they believe is missing from the Draft EIR and to identify where the information can be obtained. All comment letters received before the close of the public review period will be responded to in writing, and the comment letters, together with the responses to those comments, will be included in the Final EIR.

Comment letters should be sent to:

Jocelyn Swain, Senior Planner
City of Lancaster
Community Development Department
44933 Fern Avenue
Lancaster, California 93534
jswain@cityoflancasterca.org

CERTIFICATION OF THE FINAL EIR

Pursuant to *CEQA Guidelines* Section 15132, *Contents of Final Environmental Impact Report*, the Final EIR will consist of:

a) The Draft EIR or a revision of the Draft;
b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
c) A list of persons, organizations, and public agencies commenting on the Draft EIR;
d) The Lead Agency's responses to significant environmental points raised in the review and consultation process; and
e) Any other information added by the Lead Agency.

Additionally, pursuant to *CEQA Guidelines* Section 15088, *Evaluation of and Response to Comments*, at least ten days prior to anticipated certification of the EIR, the City will provide responses to comments provided by all commenting agencies.

PROJECT CONSIDERATION

Upon Final EIR certification, the Lancaster City Council may consider approval of the proposed project. A decision to approve the project would be accompanied by specific, written findings, in accordance with *CEQA Guidelines* Section 15091, and if required, a specific written statement of overriding considerations, in accordance with *CEQA Guidelines* Section 15093.

2.3 NOTICE OF PREPARATION/ EARLY CONSULTATION (SCOPING)

In compliance with the *CEQA Guidelines*, the City has provided opportunities for various agencies and the public to participate in the environmental review process. During EIR preparation, efforts were made to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments on the scope of the review in this document. This included the distribution of a Notice of Preparation (NOP) to various responsible agencies, trustee agencies, and interested parties. The purpose of the NOP was to formally announce the preparation of a Draft EIR for the proposed project, and that, as the Lead Agency, the City was soliciting input regarding the scope and content of the environmental information to be included in the Draft EIR. The NOP provided preliminary information regarding the anticipated range of impacts to be analyzed within the Draft EIR. The NOP was distributed for a 30-day public review period from September 10, 2021 through October 12, 2021.

In addition, a public scoping meeting was conducted on September 22, 2021 at 5:00 p.m. Due to the COVID-19 pandemic, the scoping meeting was held virtually on Zoom. The scoping meeting's purpose was to:

- Inform the public of the proposed project and the City's intent to prepare an EIR;
- Present an overview of the CEQA EIR process;
- Review the topics to be addressed in the EIR; and
- Receive public comments on issues of concern and environmental topics to be addressed in the EIR.

No participants attended the public scoping meeting or provided comments prior to or after the meeting. However, the following commenters submitted comment letters during the 30-day public review period; refer to Appendix 11.1, *Notice of Preparation and Comment Letters*.

- Native American Heritage Commission, dated September 13, 2021;
- Ken Molock, dated September 21, 2021;
- California Department of Transportation District 7, dated September 23, 2021;
- Los Angeles County Sanitation Districts, dated October 6, 2021;
- California Department of Fish and Wildlife, dated October 6, 2021; and
- Southwest Regional Council of Carpenters, dated October 11, 2021.

Relevant CEQA issues raised in the NOP comments are summarized below:

- Potential impacts to biological resources, including special-status species, jurisdictional resources, wetlands, sensitive communities, and nesting birds (refer to Section 5.3, *Biological Resources*);
- Potential impacts on cultural resources and compliance with tribal consultation requirements under Senate Bill 18 and Assembly Bill 52 (refer to Section 5.4, *Tribal and Cultural Resources*);

- Project consistency with current State-level sustainable transportation policy goals, including reducing vehicular trips and associated greenhouse gas emissions and encouraging alternative modes of travel (refer to Section 5.8, *Transportation*); and
- Potential project impacts on existing and/or proposed utility facilities (e.g., sewer and water lines) that are located and/or cross directly beneath roadways (refer to Section 5.13, *Utilities and Service Systems*).

2.4 FORMAT OF THE EIR

The Draft EIR is organized into the following sections:

- Section 1.0, *Executive Summary*, provides a brief project description and summary of the environmental impacts and mitigation measures.
- Section 2.0, *Introduction and Purpose*, provides CEQA compliance information.
- Section 3.0, *Project Description*, provides a detailed project description indicating project location, background, and history; project characteristics and objectives; as well as associated discretionary actions required.
- Section 4.0, *Basis of Cumulative Analysis*, describes the approach and methodology for the cumulative analysis.
- Section 5.0, *Environmental Analysis*, contains a detailed environmental analysis of the existing conditions, existing regulatory setting, potential project impacts, potential cumulative impacts, recommended mitigation measures, and significant unavoidable impacts (if any) for the following environmental topic areas:
  - Land Use and Planning;
  - Aesthetics/Light and Glare;
  - Biological Resources;
  - Tribal and Cultural Resources;
  - Geology and Soils;
  - Hydrology and Water Quality;
  - Hazards and Hazardous Materials;
  - Transportation;
  - Air Quality;
  - Greenhouse Gas Emissions;
  - Energy;
  - Noise; and
  - Utilities and Service Systems.
- Section 6.0, *Other CEQA Considerations*, discusses long-term implications of the proposed action. Irreversible environmental changes that would be involved in the proposed action, should it be implemented, are considered. The project's growth-inducing impacts, including the potential for population growth, is also discussed.
- Section 7.0, *Alternatives to the Proposed Project*, describes a reasonable range of alternatives to the project or its location that could avoid or substantially lessen the project's significant impact and still feasibly attain the basic project objectives.

- Section 8.0, *Effects Found Not To Be Significant*, explains potential impacts that have been determined not to be significant.
- Section 9.0, *Organizations and Persons Consulted*, identifies all Federal, State, and local agencies, other organizations, and individuals consulted.
- Section 10.0, *Bibliography*, identifies reference sources for the EIR.
- Section 11.0, *Appendices*, contains the project's technical documentation.

2.5 RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to *CEQA Guidelines* Sections 15381 and 15386, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

> *"Responsible Agency" means a public agency, which proposes to carry out or approve a project, for which [a] Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "responsible agency" includes all public agencies other than the Lead Agency, which have discretionary approval power over the project. (Section 15381)*

> *"Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. Trustee Agencies include; The California Department of Fish and Game, The State Lands Commission; The State Department of Parks and Recreation and The University of California with regard to sites within the Natural Land and Water Reserves System. (Section 15386)*

2.6 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with *CEQA Guidelines* Section 15150, which encourages incorporation by reference as a means of reducing redundancy and the length of environmental reports. The following documents are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized for each section of this EIR. These documents are available for review at the City of Lancaster Community Development Department, located at 44933 Fern Avenue, Lancaster, California 93534.

- *City of Lancaster General Plan 2030 (adopted July 14, 2009)*. The *City of Lancaster General Plan 2030* (General Plan) was adopted by the Lancaster City Council on July 14, 2009 and has a horizon year of 2030. The General Plan identifies the types of development that are allowed, and the general pattern of future development within Lancaster. Additionally, the General Plan contains goals, objectives, policies and specific actions that provide the framework for achieving the community's long-term vision. The General Plan consists of the following elements/plans: Natural Environment, Public Health and Safety, Active Living, Physical Mobility, Municipal Services and Facilities, Economic Development and Vitality, and Physical Development. The Housing Element is provided under separate cover and is currently being updated for the 2021-2029 housing cycle.

In June 2020, the City adopted vehicle miles traveled (VMT) baselines and thresholds as required by Senate Bill 743 and amended policies in the Plan for Physical Mobility of the General Plan relating to the identification of transportation impacts as part of CEQA compliance and modification to the methodology used to identify transportation-related significant issues associated with land development and infrastructure projects.

- *City of Lancaster General Plan 2030 Master Environmental Assessment (dated April 2009)*. The City of Lancaster General Plan 2030 Master Environmental Assessment (General Plan MEA) was prepared in conjunction with the General Plan and provides a description of existing environmental conditions within the General Plan study area. Physical, environmental, cultural, social, and economic conditions for the General Plan study area are identified in the MEA to establish existing conditions (in 2009) and help formulate goals and policies that will guide the City into the future. Topical areas included earth resources, biological resources, land use, population, transportation and circulation, air quality, noise, public services, utilities, cultural and paleontological resources, scenic resources, and fiscal resources. Additionally, information developed as part of the MEA was utilized and summarized for the existing conditions subsection of the City of Lancaster General Plan 2030 Final Environmental Impact Report described below.

- *City of Lancaster General Plan 2030 Final Environmental Impact Report (certified April 2009)*. The City of Lancaster General Plan 2030 Final Environmental Impact Report (General Plan EIR) evaluated the environmental impacts associated with buildout of the General Plan. The General Plan EIR concluded that environmental impacts would be reduced to less than significant levels with implementation of existing regulatory requirements and mitigation measures with the exception of traffic and circulation, short- and long-term air quality, short- and long-term noise, hydrology/water quality, and water supply.

- *Lancaster Municipal Code (current through Ordinance 1086, updated November 11, 2021)*. The *Lancaster Municipal Code* (Municipal Code) consists of all the regulatory and penal ordinances and administrative ordinances of the City of Lancaster. The Municipal Code is one of the City's primary tools to implement control of land uses, in accordance with General Plan goals and policies. The Lancaster Zoning Code, included as Municipal Code Title 17, *Zoning*, provides the legislative framework to implement and enhance the General Plan by classifying and regulating the uses of land and structures within the City.

3.0 Project Description

3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

3.1.1 PROJECT LOCATION

The City of Lancaster (City) is located in the Antelope Valley in northern Los Angeles County (County), approximately 70 miles north of downtown Los Angeles; refer to Exhibit 3-1, *Regional Vicinity*. Unincorporated Los Angeles County surrounds the City on all sides. Additional surrounding jurisdictions include unincorporated Kern County further to the north and the City of Palmdale to the south; refer to Exhibit 3-2, *Site Vicinity*.

The Antelope Valley Freeway (State Route 14) provides primary regional connectivity between the Antelope Valley and Greater Los Angeles area. Various arterials in the City also serve regional functions. Avenue D (State Route 138) extends west from SR-14, and connects to the Golden State Freeway (Interstate 5), and extends east from the City of Palmdale, connecting with Interstate 15. Sierra Highway links Lancaster with the community of Rosamond to the north and the City of Palmdale to the south.

3.1.2 PROJECT SETTING (EXISTING CONDITIONS)

The City is characterized by two distinct patterns of development. The first pattern is reflected in the downtown area, and is predominantly developed with a mix of existing single- and multi-family residential, commercial, public, and institutional uses organized on a closely spaced grid system. The second pattern, influenced by the growth of the aerospace industry and private automobile, is dominated by single-use zoning (i.e., shopping centers, office parks, housing tracts, etc.). Overall, Lancaster is generally characterized by a pattern of low-density land uses from 70th Street West to 40th Street East and from Avenue F to Avenue N, with isolated areas of rural development surrounding the core of the City from 110th Street West to 110th Street East. The City's urban core is defined as 30th Street West to 20th Street East from Avenue I to Avenue L. Based on the General Plan, existing uses in the City include non-urban residential, urban residential, multi-family residential, commercial, industrial, public facilities, and roadways.

Based on the *Lancaster General Plan 2030* (General Plan) Land Use Map, land use designations in the City include Non-Urban Residential (NU; 0.4-2.0 dwelling units per acre [du/ac]), Urban Residential (UR; 2.1-6.5 du/ac), Multi-Residential (MR1; 6.6-15.0 du/ac), Multi-Residential (MR2; 15.1-30.1 du/ac); Mixed-Use (MU); Commercial (C); Office/Professional (OP); Light Industrial (LI); Heavy Industrial (HI); Health Care (H); Public Use (P); and Open Space (O).

NOT TO SCALE

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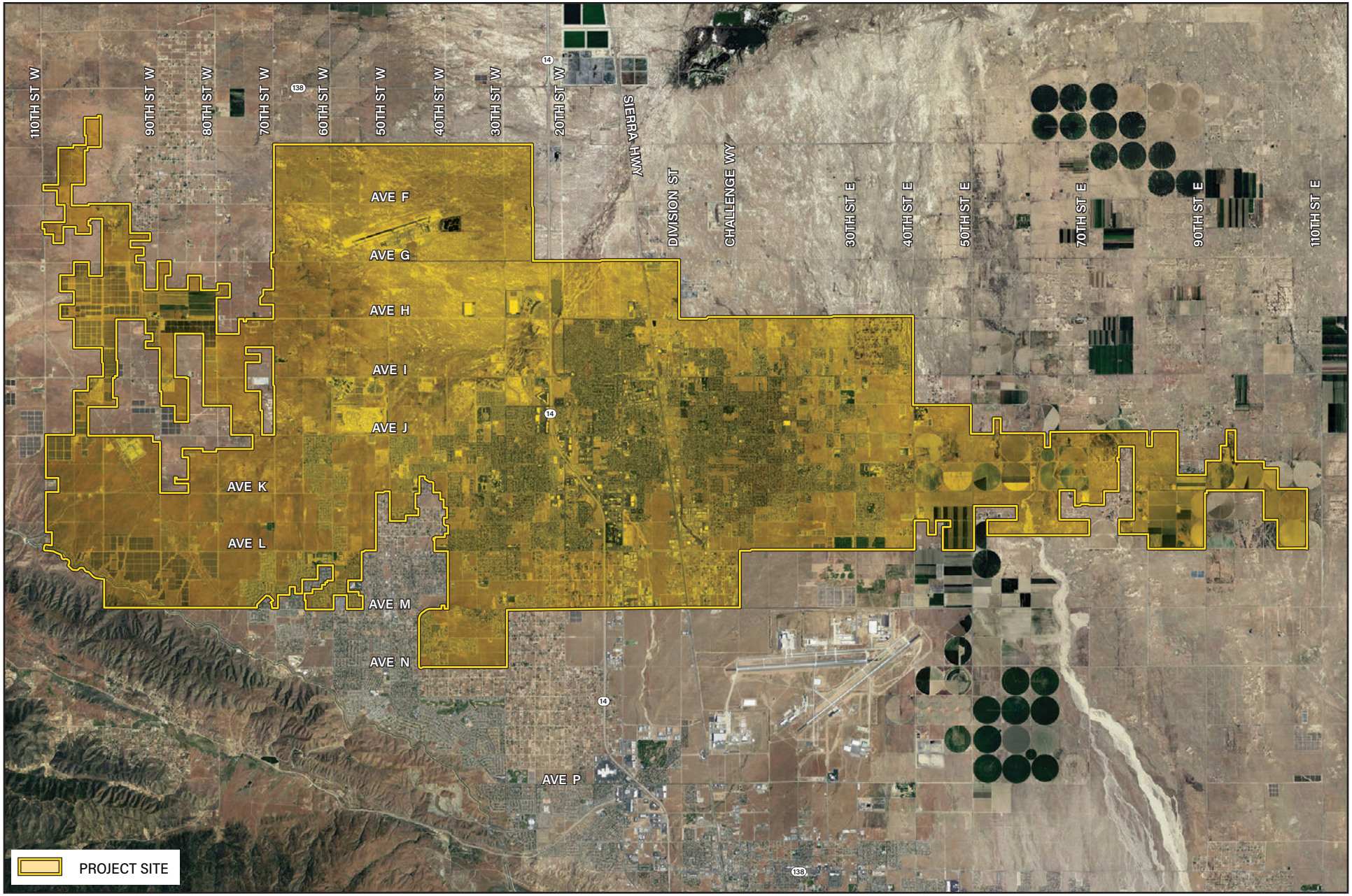
Regional Vicinity

Exhibit 3-1



Source: Google Earth Pro, April 2022

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ENVIRONMENTAL IMPACT REPORT

Site Vicinity

Exhibit 3-2

Based on the *Lancaster Municipal Code* (Municipal Code) and *Lancaster Zoning Map* (Zoning Map), several zoning designations encompass the City, including RR-2.5 (Rural Residential, 1 du/ac); RR-1 (Rural Residential 1 du/ac); SRR (Semi-Rural Residential 1-2 du/ac); R-15,000 (Single Family Residential, minimum lot size 15,000 square feet); R-10,000 (Single Family Residential, minimum lot size 10,000 square feet); R-7,000 (Single Family Residential, minimum lot size 7,000 square feet); High Density Residential (HDR; 15.1-30 du/ac); Moderate Density Residential (MDR; 7.1-15 du/ac); Mobile Home Park (MHP); Mobile Home Park-Senior Overlay (MHP-S); Commercial (C); Commercial Planned Development (CPD); Office Professional (OP); Mixed-Use Commercial (MU-C); Mixed-Use Employment (MU-E); Mixed Use Neighborhood (MU-N); Mixed-Use Transit Oriented Development (MU-TOD); Mixed-Use Health District (MU-HD); Heavy Industrial (HI); Light Industrial (LI); Health Care (H); Public (P); School (S); Specific Plan (SP); Cemetery (CE); Open Space (O); and Park (PK).

There are also several specific plans and a master plan within Lancaster, including the Downtown Lancaster Specific Plan, Amargosa Creek Specific Plan, Fox Field Specific Plan, Lancaster Business Park Specific Plan, Avanti South Specific Plan, Avanti North Specific Plan, and Lancaster Health District Master Plan.

3.2 BACKGROUND AND HISTORY

In September 2013, the Governor's Office of Planning and Research (OPR) signed Senate Bill (SB) 743 into law, starting a process that fundamentally changed the way transportation impact analysis is conducted under the California Environmental Quality Act (CEQA). SB 743 identifies vehicle miles traveled (VMT) as the most appropriate CEQA transportation metric and eliminates auto delay, or level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. In December 2018, the California Natural Resource Agency certified and adopted the CEQA statute (14 California Code of Regulations Section 15064.3). Per the CEQA statute, the VMT guidelines became effective on July 1, 2020.

In accordance with SB 743, the City adopted its *VMT Guidelines* (at the June 15, 2020 City Council meeting) and *Local Transportation Assessment Guidelines* (dated January 5, 2021). The *VMT Guidelines* consist of the City Council resolution adopting VMT baselines and thresholds as required by SB 743 as well as the *Transportation Analysis Updates in Lancaster*, dated May 27, 2020 and prepared by Fehr & Peers. These guidelines established a dual analysis process to the City's review of development projects: 1) VMT is to be utilized to identify transportation impacts in the context of the CEQA process, and 2) vehicular LOS will continue to be utilized per City policy.

The implementation of SB 743 and the City's recently adopted *VMT Guidelines* have created challenges for development projects in Lancaster. Specifically, smaller development projects have been triggering potentially significant VMT impacts under CEQA with no feasible mitigation to offset such impacts. Thus, the City is proposing to create a VMT mitigation program to streamline the SB 743 compliance process for development within Lancaster.

As part of this effort, the City retained Michael Baker International (Michael Baker) to conduct research and prepare the proposed VMT Mitigation Program. Michael Baker reviewed existing City

planning documents to inform City staff of potential Transportation Demand Management (TDM) strategies and VMT-reducing projects that can be funded by the program. Additionally, peer agencies also in the process of developing or implementing VMT mitigation programs, including the City of Orange, City of San Diego, County of San Diego, and City of Petaluma were interviewed to obtain insight in their program development and implementation. Planning-level cost estimates and nexus calculations were prepared for the identified TDM strategies and VMT-reducing projects to estimate the cost of identified transportation improvements and the net VMT benefits.

The City determined that the mitigation program would utilize an impact fee. The impact fee would allow new development to mitigate VMT impacts by making "fair share" payments to cover the cost of the identified TDM strategies and VMT-reducing projects. The fee was calculated based on the cost to implement the identified VMT-reducing improvements and programs divided by the projected growth in Citywide VMT from 2021 to 2040 and also included a two percent fee program administration fee. Overall, the maximum allowable mitigation fee per VMT is $425.

The fee would apply to new residential and nonresidential development in the City that is subject to VMT analysis under CEQA and is shown to generate VMT over the City's threshold of significance. In other words, if a project screens out of VMT analysis or is located in a VMT efficient zone, the impact fee would not be applicable. VMT efficient zones are areas of the City where the VMT is already 15 percent or more below the adopted thresholds for the type of use (e.g., residential). The impact fee would only apply for projects that result in potentially significant VMT impacts under CEQA.

3.3 PROJECT CHARACTERISTICS

3.3.1 PROJECT DESCRIPTION

The proposed VMT Mitigation Program (from herein referred to as the "program" or "project") aims to establish mitigation for projects that exceed the City's VMT thresholds in the form of a mitigation impact fee. The program identifies relevant TDM strategies and VMT-reducing projects within the City to be funded by the impact fee. These funds would be utilized to fund active transportation infrastructure projects in the City to help the City meet its VMT reduction goals. The overall intent of the program is to streamline the SB 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT.

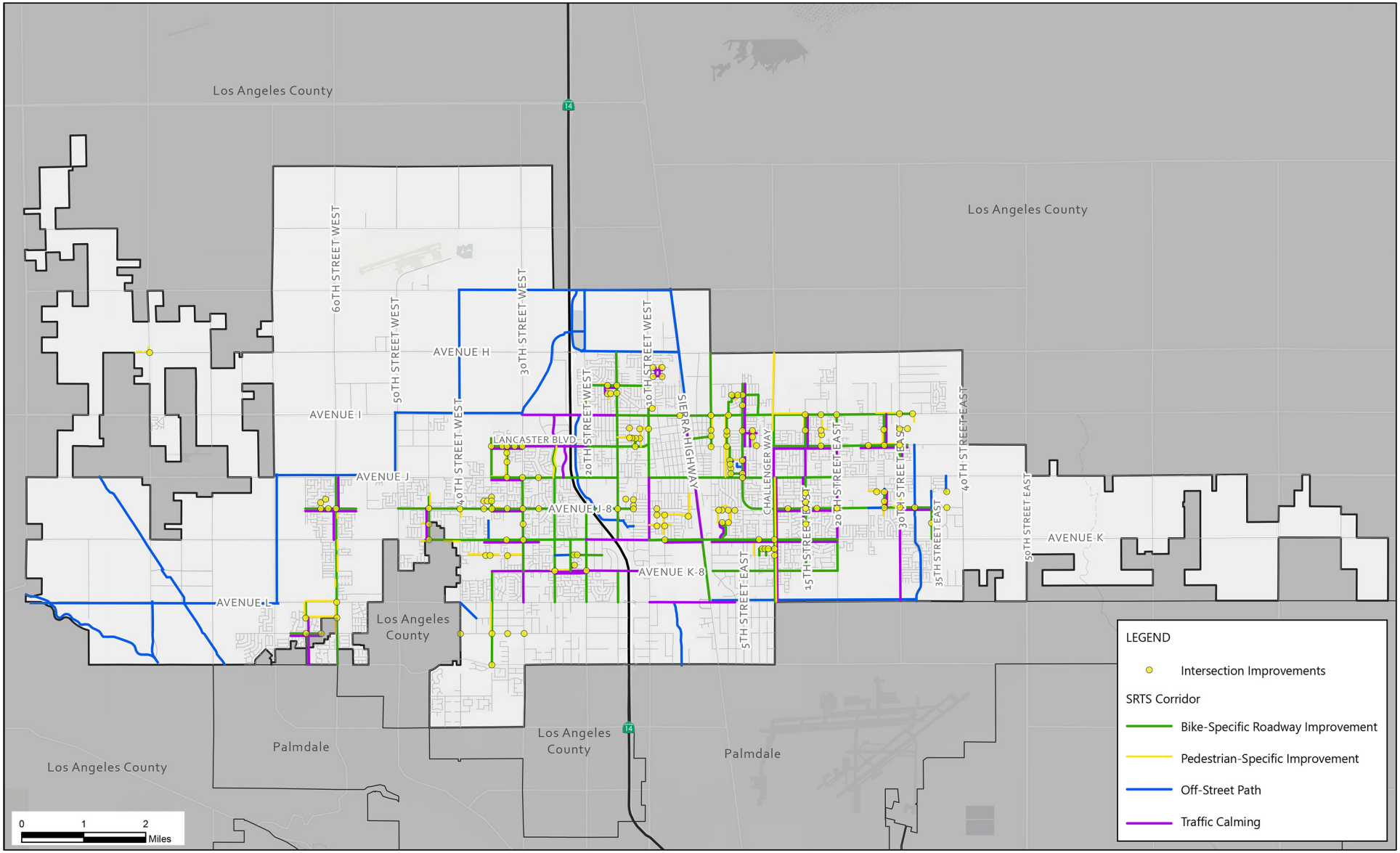
The following existing City planning documents were reviewed to identify unfunded, planned infrastructure improvement projects within Lancaster that contribute towards reducing Citywide VMT and could be funded by the proposed program:

- *Master Plan of Complete Streets* (June 26, 2018);
- *Lancaster TOD Zones* (adopted February 10, 2015, updated January 2020);
- *Safer Streets Action Plan* (January 2020);
- *Safe Routes to School Master Plan* (November 2016); and
- *Master Plan of Trails and Bikeways* (March 2012).

Table 3-1, *Potential VMT-Reducing Improvements*, provides a summary of VMT-reducing improvements that could occur with future funding provided by the proposed program. Refer to Appendix 11.2, *VMT-Reducing Projects*, for a complete list of relevant VMT-reducing projects. Additionally, Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*, illustrates the approximate locations of the identified VMT-reducing improvements.

Table 3-1
Potential VMT-Reducing Improvements

Description	Quantity
Bus Bulb-Out	11
Rectangular Rapid Flashing Beacon	16
Crosswalk	38
Curb-Pop-Out (per corner)	337
Pedestrian Refuge Island	34
Traffic Signal Modification for Bike Phasing	1
New Traffic Signal (for pedestrian crosswalk)	1
Neighborhood Traffic Circle	1
One-Lane Roundabout	6
Miscellaneous Minor Traffic Calming (including speed humps)	3
Sidewalk (with curb and gutter)	167,385 linear feet (LF)
Widen Sidewalk (assume additional five feet)	232,820 LF
Restripe Roadway (assume 60-foot wide with slurry)	433,840 LF
Two-Way Cycle Track	1,910 LF
Median (12-foot wide)	2,550 LF
Widen Shoulder (12-foot wide)	1,330 LF
Multi-Purpose Path	224,250 LF
Total Buildout	
Sidewalk (with curb and gutter)	31.7 miles
Widen Sidewalk (assume additional five feet)	44.1 miles
Restripe Roadway (assume 60-foot wide with slurry)	82.2 miles
Two-Way Cycle Track	0.4 miles
Median (12-foot wide)	0.5 miles
Widen Shoulder (12-foot wide)	0.3 miles
Multi-Purpose Path	42.5 miles



Source: Michael Baker International, 2021

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ENVIRONMENTAL IMPACT REPORT

Potential VMT-Reducing Improvement Locations

Exhibit 3-3

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The VMT-reducing improvements identified above in Table 3-1 and Exhibit 3-3 could potentially be constructed utilizing funds collected under the proposed VMT Mitigation Program. These projects would be subject to future CEQA analysis on a project-by-project basis as they are proposed and as the extent of impacts become known through the design process. However, these facilities may result in impacts to the environment, and thus are the subject of the programmatic analysis within this EIR.

3.4 GOALS AND OBJECTIVES

CEQA Guidelines Section 15124(b) states that an EIR project description must include "[a] statement of objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project." The proposed project objectives are outlined below.

1. Streamline the SB 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant VMT impacts.

2. Identify funding for future TDM strategies and VMT-reducing projects within Lancaster to help reduce Citywide total VMT.

3. Contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community with active, healthy, and livable spaces.

3.5 DISCRETIONARY APPROVALS

City discretionary approvals associated with the project include, but are not limited to, the following:

- Certification of the EIR; and
- Adoption of the VMT Mitigation Program.

Additionally, TDM strategies and VMT-reducing improvements implemented in accordance with the VMT Mitigation Program may be constructed as part of future developments or by the City and require separate future discretionary approvals, such as:

- City of Lancaster
  - Site Development Permits;
  - Street Vacations/Dedications;
  - Encroachment Permits;
  - Building and Construction Permits;

- California Department of Transportation
  - Encroachment Permits;

- California Department of Fish and Wildlife
  - Incidental Take Permits for Joshua trees;

- Other
  - Federal Aviation Administration;
  - Los Angeles County Airport Land Use Commission;
  - Southern California Edison/California Public Utilities Commission approvals for power line relocations or undergrounding; and
  - Antelope Valley Air Quality Management District.

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4.0 Basis of Cumulative Analysis

4.0 BASIS OF CUMULATIVE ANALYSIS

CEQA Guidelines Section 15355 provides the following definition of cumulative impacts:

> *"Cumulative impacts" refer 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.*

CEQA Guidelines Section 15130 further addresses the discussion of cumulative impacts, as follows:

> *(1) An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.*
>
> *(2) If the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR should briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR.*
>
> *(3) If the combined cumulative impact associated with the project's incremental effect and the effects of other projects is significant, the EIR must determine whether the project's contribution is cumulatively considerable.*
>
> *(4) The EIR may conclude the project's contribution to a significant cumulative impact is less than cumulatively considerable and thus is not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.*

Section 5.0, *Environmental Analysis*, assesses the cumulative impacts for each applicable environmental issue, and does so to a degree that reflects each impact's severity and likelihood of occurrence.

In accordance with *CEQA Guidelines* Section 15130(b), the discussion of cumulative impacts shall be guided by the standards of practicality and reasonableness, and should include the following elements in its discussion of significant cumulative impacts:

> *1. Either:*
>
> *A. A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency, or*

> B. *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 effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projects may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.*
>
> 2. *When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.*
>
> 3. *Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.*
>
> 4. *A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.*
>
> 5. *A reasonable analysis of the cumulative impacts of the relevant projects, including examination of reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.*

This EIR evaluates the project's potential cumulative impacts using the summary of projections approach, specifically buildout of the *City of Lancaster General Plan 2030* (General Plan). The General Plan considered the following three land use alternatives:

- *No Project Alternative*. The No Project Alternative assumed buildout of the then current General Plan. Single-family residential and rural residential uses would continue to be the predominant land use within the City. Commercial development would continue to develop within the urban core and along the Antelope Valley Freeway. The majority of industrial growth would be located within Fox Field. Under the No Project Alternative, the predominant transportation mode would continue to be the automobile.
- *Balanced Growth Land Use Plan Alternative*. The Balanced Growth Land Use Plan Alternative would promote a balanced distribution of land uses throughout the City. Urban areas, currently served by existing infrastructure, would be expanded through infill development. Under this alternative, the land uses would be arranged with the goal of ensuring that no urban area of the City would be underserved with shopping and recreational opportunities and public services. Areas of the City designated for urban residential uses would also contain sufficient land use inventories for commercial retail and service uses as well as open space and other public land. Although single-family residential and rural residential uses would continue to be the primary land uses within the City, the potential for some mixed-use development would

also occur within the urban core. Commercial and recreational uses, as well as public services would be located in proximity to residential neighborhoods. The predominant mode of travel would continue to be the automobile, with some reduction in the amount and length of vehicle trips anticipated due to the balance distribution of land uses.

- *General Plan Citizens Advisory Committee (GPCAC) Preferred Land Use Plan Alternative*. The GPCAC Preferred Land Use Plan Alternative would focus on the utilization of available infill areas within the urban core, rather than emphasizing the outward expansion of low-density residential subdivisions. It promotes the development of localized community centers with compact mixed-uses that minimize the impact of the automobile. The GPCAC Preferred Land Use Plan Alternative also establishes a clear link between alternative transportation choices and land use encouraging the efficient use of infill parcels and urban revitalization to create neighborhoods that are pedestrian in scale and in easy walking distance to transit services and other uses. By placing an emphasis on infill development, the GPCAC Preferred Land Use Plan Alternative would promote the preservation of open space and rural residential land. The GPCAC Preferred Plan Alternative incorporates aspects of the Balanced Growth Land Use Plan Alternative in an effort to balance land uses in locations within the urbanizing area that are predominantly designated for single-family use.

Buildout of the GPCAC Preferred Land Use Plan Alternative was utilized in analyzing cumulative impacts associated with the proposed VMT Mitigation Program given the nature of the project as a mechanism to reduce Citywide VMT with the implementation of VMT-reducing transportation improvements. Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*, provides a summary of the anticipated development conditions at General Plan buildout in year 2030 under the GPCAC Preferred Land Use Plan Alternative.

Table 4-1
General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout

Land Use Designation	2030 Acres[1]	Change in Acres[1] (2006-2030)	Anticipated Development		Change in DU[2] (2006-2030)	2030	
			du/acre	FAR/acre		Estimated DU[2,3]	Estimated SF[2]
Residential Land Use Classification							
NU – Non-Urban Residential[4] (0.4 – 2.0 du/ac)	795 (RR-2.5)	180	0.4	N/A	72	317	N/A
	788 (RR-1)	100	1.0		100	786	
	943 (SRR)	316	2.0		631	1,882	
UR – Urban Residential (2.1 – 6.5 du/ac)[5]	251 (R-15,000)	111	2.5	N/A	278	627	N/A
	1,795 (R-10,000)	1,156	3.0		3,469	5,381	
	11,423 (R-7000)	4,686	4.0		18,745	45,713	
MR1 – Multi-Residential (6.6 – 15.0 du/ac)[6]	443 (MDR)	22	5.0	N/A	111	1,895	N/A
	724 (HDR)	277	12.0		3,325	7,871	
MR2 – High Density Residential	405	59	22	N/A	1,300	8,043	N/A
MU – Mixed Use	567	382	20	0.10:1	7,648	8,123	2,469,852
Downtown Specific Plan[7]					1,301	1,301	N/A[8]

Table 4-1 [cont'd]
General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout

Land Use Designation	2030 Acres[1]	Change in Acres[1] (2006-2030)	Anticipated Development		Change in DU[2] (2006-2030)	2030	
			du/acre	FAR/acre		Estimated DU[2,3]	Estimated SF[2]
General Commercial Land Use Classification							
C – Commercial	1,660	--	N/A	0.23:1	N/A	N/A	16,631,208
OP – Office/Professional	72	--	N/A	0.23:1	N/A	N/A	721,354
Employment Land Use Classification							
Li – Light Industrial	2,028	--	N/A	0.20:1	N/A	N/A	17,667,936
Hi – Heavy Industrial	539	--	N/A	0.20:1	N/A	N/A	4,695,768
Public And Quasi-Public Land Use Classification							
P – Public Use	1,423	--	N/A	N/A	N/A	--	--
H – Health Care	149	--	N/A	N/A	N/A	--	--
O – Open Space	791	--	N/A	N/A	N/A	--	--
City of Lancaster Subtotal	**24,796**	**--**				**81,939**	**42,186,118**

Source: City of Lancaster, *City of Lancaster General Plan 2030 Draft Environmental Impact Report, Table 3-8*, December 2008.

Notes: du = dwelling units; FAR = floor area ratio; SF = square feet

1. Acreages rounded to the nearest whole number.
2. Density calculated from acreages rounded to the nearest hundredth and then rounded to the nearest whole number.
3. 2030 residential units were determined by adding the number of existing units to the number of potential units based on the increase in residential acreage and density allowed for the specific residential land use designation.
4. The NU – Non-Urban Residential land use designation corresponds with RR-2.5 (Rural Residential, 1 du/ac), RR-1 (Rural Residential 1 du/ac); and SRR (Semi-Rural Residential 1-2 du/ac) zoning districts.
5. The UR – Urban Residential land use designation corresponds with R-15,000 (Single Family Residential, minimum lot size 15,000 SF); R-10,000 (Single Family Residential, minimum lot size 10,000 SF); and R-7,000 (Single Family Residential, minimum lot size 7,000 SF) zoning districts.
6. The MR1 – Multi-Residential land use designation corresponds with High Density Residential (HDR; 15.1-30 du/ac) and Moderate Density Residential (MDR; 7.1-15 du/ac) zoning districts.
7. The Downtown Lancaster Specific Plan contains several land use designations. Anticipated residential growth is based on projections identified within the Downtown Lancaster Specific Plan.
8. Non-residential square footage anticipated in the Downtown Lancaster Specific Plan is considered within the non-residential land use designations.

It is acknowledged that the geographic area considered for cumulative impacts also varies depending on the environmental issue area. For example, aesthetics and light and glare impacts are local (addressed in Section 5.2, *Aesthetics/Light and Glare*), air quality impacts are both regional and local (addressed in Section 5.9, *Air Quality*), and greenhouse gas emission impacts are global in nature (addressed in Section 5.10, *Greenhouse Gas Emissions*).

5.0 Environmental Analysis

5.0 ENVIRONMENTAL ANALYSIS

The following subsections of the EIR contain a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term, long-term, and cumulative impacts), recommended mitigation measures, and any significant and unavoidable impacts. The EIR analyzes those environmental issue areas where potentially significant impacts may occur, as stated in Appendix 11.1, *Notice of Preparation and Comment Letters*.

The EIR examines environmental factors outlined in Appendix G of the *CEQA Guidelines*, *Environmental Checklist Form*, as follows:

5.1 Land Use and Planning;
5.2 Aesthetics/Light and Glare;
5.3 Biological Resources;
5.4 Tribal and Cultural Resources;
5.5 Geology and Soils;
5.6 Hydrology and Water Quality;
5.7 Hazards and Hazardous Materials;
5.8 Transportation;
5.9 Air Quality;
5.10 Greenhouse Gas Emissions;
5.11 Energy;
5.12 Noise; and
5.13 Utilities and Service Systems.

Other environmental topical areas are addressed in Section 8.0, *Effects Found Not To Be Significant*.

Each environmental issue is addressed in a separate section of the EIR and is organized into six sections, as follows:

- "Existing Setting" describes the physical conditions that exist at the present time and that may influence or affect the issue under investigation.

- "Regulatory Setting" lists and discusses the laws, ordinances, regulations, and standards that apply to the project.

- "Impact Thresholds and Significance Criteria" provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in Appendix G of the *CEQA Guidelines* (California Code of Regulations, Sections 15000 through 15387).

  Primary sources used in identifying the criteria include the *CEQA Guidelines*; local, State, Federal, or other standards applicable to an impact category; and officially established significance thresholds. ". . . An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting" (*CEQA Guidelines* Section 15064[b]).

Principally, ". . . a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance" constitutes a significant impact (*CEQA Guidelines* Section 15382).

- "Impacts and Mitigation Measures" describes potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Evidence, based on factual and scientific data, is presented to show the cause and effect relationship between the proposed project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts may be significant; all of the potential direct and reasonably foreseeable indirect effects are considered.

  Impacts are generally classified as potentially significant impact, less than significant impact, or no impact. The "Level of Significance After Mitigation" identifies the impacts that would remain after application of mitigation measures, and whether the remaining impacts are or are not considered significant. When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as "significant unavoidable impacts."

  "Mitigation Measures" are measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

- "Cumulative Impacts" describes potential environmental changes to the existing physical conditions that may occur as a result of the proposed project together with all other reasonably foreseeable, planned, and approved future projects producing related or cumulative impacts.

- "Significant Unavoidable Impacts" describes impacts that would be significant and cannot be feasibly mitigated to less than significant, and thus would be unavoidable. To approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable" (*CEQA Guidelines* Section 15093[a]).

5.1 Land Use and Relevant Planning

5.1 LAND USE AND PLANNING

This section identifies existing land use conditions and evaluates the project's consistency with planning policies. This section identifies on-site and surrounding land use conditions and land use policies and regulations from State, regional, and local regulations.

5.1.1 EXISTING SETTING

ON-SITE LAND USES

The City is characterized by two distinct patterns of development. The first pattern is reflected in the downtown area, and is predominantly developed with a mix of existing single- and multi-family residential, commercial, public, and institutional uses organized on a closely spaced grid system. The second pattern, influenced by the growth of the aerospace industry and private automobile, is dominated by single-use zoning (i.e., shopping centers, office parks, housing tracts, etc.). Overall, Lancaster is generally characterized by a pattern of low-density land uses from 70th Street West to 40th Street East and from Avenue F to Avenue N, with isolated areas of rural development surrounding the core of the City from 110th Street West to 110th Street East. The City's urban core is defined as 30th Street West to 20th Street East from Avenue I to Avenue L. Based on the General Plan, existing uses in the City include non-urban residential, urban residential, multi-family residential, commercial, industrial, public facilities, and roadways.

Based on the General Plan Land Use Map, land use designations in the City include Non-Urban Residential (NU; 0.4-2.0 dwelling units per acre [du/ac]), Urban Residential (UR; 2.1-6.5 du/ac), Multi-Residential (MR1; 6.6-15.0 du/ac), Multi-Residential (MR2; 15.1-30.1 du/ac); Mixed-Use (MU); Commercial (C); Office/Professional (OP); Light Industrial (LI); Heavy Industrial (HI); Health Care (H); Public Use (P); and Open Space (O).

Based on the Municipal Code and *Lancaster Zoning Map* (Zoning Map), several zoning designations encompass the City, including Rural Residential (RR-2.5; 0.4 du/ac); Rural Residential (RR-1; 1 du/ac); Semi-Rural Residential (SRR; 1-2 du/ac); Single Family Residential on 15,000 Square Foot Lots (R-15,000); Single Family Residential on 10,000 Square Foot Lots (R-10,000); Single Family Residential on 7,000 Square Foot Lots (R-7,000); High Density Residential (HDR; 15.1-30 du/ac); Moderate Density Residential (MDR; 7.1-15 du/ac); Mobile Home Park (MHP); Mobile Home Park-Senior Overlay (MHP-S); Commercial (C); Commercial Planned Development (CPD); Office Professional (OP); Mixed-Use Commercial (MU-C); Mixed-Use Employment (MU-E); Mixed Use Neighborhood (MU-N); Mixed-Use Transit Oriented Development (MU-TOD); Mixed-Use Health District (MU-HD); Heavy Industrial (HI); Light Industrial (LI); Health Care (H); Public (P); School (S); Specific Plan (SP); Cemetery (CE); Open Space (O); and Park (PK).

There are also several specific plans and a master plan within Lancaster, including the Downtown Lancaster Specific Plan, Amargosa Creek Specific Plan, Fox Field Specific Plan, Lancaster Business Park Specific Plan, Avanti South Specific Plan, Avanti North Specific Plan, and Lancaster Health District Master Plan.

5.1.2 REGULATORY SETTING

REGIONAL LEVEL

Southern California Association of Governments

Regional planning agencies such as the Southern California Association of Governments (SCAG) recognize that planning issues extend beyond the boundaries of individual cities. Efforts to address regional planning issues such as affordable housing, transportation, and air pollution have resulted in the adoption of regional plans that affect the City of Lancaster.

SCAG has evolved as the largest council of governments in the United States, functioning as the Metropolitan Planning Organization (MPO) for six counties (Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial) and 191 cities. The region encompasses an area of more than 38,000 square miles. As the designated MPO, the Federal government mandates SCAG to research and develop plans for transportation, growth management, hazardous waste management, and air quality. These mandates led SCAG to prepare comprehensive regional plans to address these concerns.

SCAG is responsible for the maintenance of a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan (RTP) and a Regional Transportation Improvement Program (RTIP). SCAG is responsible for the development of demographic projections and is also responsible for development of the integrated land use, housing, employment, transportation programs, measures, and strategies for the Antelope Valley Air Quality Management Plan (AQMP).

Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The passage of Senate Bill 375 (SB 375) in 2008 requires that an MPO, such as SCAG, prepare and adopt a Sustainable Communities Strategy (SCS) that sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce greenhouse gas (GHG) emissions from automobiles and light duty trucks (Government Code Section 65080(b)(2)(B)). The SCS outlines certain land use and transportation strategies that provide for more integrated land use and transportation planning and maximize transportation investments. The SCS is intended to provide a regional land use policy framework that local governments may consider and build upon.

On September 3, 2020, SCAG's Regional Council adopted *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). The 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2020-2045 RTP/SCS closely integrates land use and transportation so that the region can grow smartly and sustainably. SCAG worked closely with local jurisdictions to develop the 2020-2045 RTP/SCS, which incorporates local growth forecasts, projects and programs, and includes complementary regional policies and initiatives. The 2020-2045 RTP/SCS includes a financial plan that identifies revenues committed, available, or reasonably available to support the SCAG region's surface transportation investments. The 2020-2045 RTP/SCS also

includes a sustainable communities strategy which sets forth a forecasted development pattern for the region which would reduce greenhouse gas emissions from automobiles and light trucks to the regional GHG targets set by California Air Resources Board (CARB) for the SCAG region.

Growth Forecasts

SCAG's Forecasting Section is responsible for producing socio-economic estimates and projections at multiple geographic levels and in multiple years. The Forecasting Section develops, refines, and maintains SCAG's regional and small area socio-economic forecasting/allocation models. The socio-economic estimates and projections are used by Federal and State mandated long-range planning efforts such as the RTP, AQMP, RTIP, and Regional Housing Needs Assessment (RHNA). SCAG's adopted 2020-2045 RTP Growth Forecasts are used to assess a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. Adopted 2020-2045 RTP/SCS Growth Forecasts provide population, household, and employment data throughout SCAG's 191 cities and in unincorporated areas to 2045.

Intergovernmental Review

SCAG's Intergovernmental Review Section is responsible for performing consistency review of regionally significant local plans, projects, and programs with SCAG's adopted regional plans. The criteria for projects of regional significance are outlined in *CEQA Guidelines* Section 15206. The proposed project is considered regionally significant as it would meet the criteria identified in Section 15206(b), requiring consistency review.

LOCAL LEVEL

City of Lancaster General Plan 2030

The General Plan, adopted on July 14, 2009, is the City's long-term blueprint for growth based on community values, ideals, and aspirations as to how its natural and man-made environments should be organized and managed. The General Plan identifies the types of development that are allowed, the spatial relationships among land uses, and the general pattern of future development. All subdivisions, public works, redevelopment projects, zoning decisions, and other various implementation tools must be consistent with the General Plan. Thus, the General Plan not only functions as a guide to the type of community that is desired, but also provides the means by which the community may achieve that desired future.

The General Plan presents seven separate plan documents that contain goals, objectives, policies, and specific actions. The exception is the Housing Element, which is contained under separate cover and updated every eight years pursuant to State law and comprises the eighth component of the General Plan. A description of each plan is provided below.

Plan for the Natural Environment

The Plan for the Natural Environment evaluates the natural and human-induced environments within the General Plan study area. This plan focuses on those resources suitable for certain levels of maintenance and protection, as well as their limitations for rural or urban use. Overall, the Plan for the Natural Environment provides a management program for those resources consistent with community values, and ensures the City is an active participant in the management of the Antelope Valley's resources. The management program outlined in the Plan for the Natural Environment is aimed at balancing demands for new urban and rural development within Lancaster, with the desire of residents to protect natural resources and retain the open character of the General Plan study area.

Plan for Public Health and Safety

The Plan for Public Health and Safety contains an evaluation of natural and manmade conditions which may pose certain levels of health and safety hazards to life and property within Lancaster, along with a comprehensive program to mitigate those hazards to acceptable levels. Inherent in this plan is a determination of "acceptable risk." Acceptable risk is based on a determination of how safe is safe enough, balancing the cost of hazard mitigation with its benefits. The Plan for Public Health and Safety identifies constraints to urban and rural development which must be considered as part of overall and site-specific development strategies. This plan also addresses existing hazards related to geology and seismicity, flooding and drainage, land use compatibility, hazardous materials, crime prevention and protection services, fire prevention and suppression services, disaster preparedness, and emergency medical facilities faced by Lancaster residents and businesses, and provides a program to mitigate those hazards.

Plan for Active Living

The Plan for Active Living focuses on the components of the community's shelter, culture, and lifestyle. It also focuses on the manner in which those in need can be helped so that all may share in achieving a high quality of life. The Plan for Active Living addresses parks, recreation, and other community services.

Plan for Physical Mobility

The Plan for Physical Mobility focuses on transportation issues, such as how goods and people move within the General Plan study area. The Plan recognizes that transportation affects land use, urban design, energy consumption, air quality, and the City's infrastructure. Addressed not only at the local level, circulation decisions must be coordinated with regional, State, and Federal agencies, as well as with neighboring communities. In the Plan for Physical Mobility, transportation facilities are discussed, as well as alternative modes of transportation.

Plan for Municipal Services and Facilities

The Plan for Municipal Services and Facilities describes the City's infrastructure and service providers and the future needs for such services and facilities. Specific topics include water facilities, wastewater facilities, flood control and drainage facilities, solid waste management, and public facilities and

buildings. The Plan for Municipal Services and Facilities sets forth policies and programs for the rational and cost-efficient provision and extension of public services, infrastructure and facilities to serve the existing community and support planned development and protect natural resources.

The Plan for Economic Development and Vitality

The Plan for Economic Development and Vitality analyzes the local economy and employment in the City. Specific topics include economic development, urban development, fiscal impacts of development, and development economic issues and options. It also contains the implementation structure for the Lancaster Economic Development/ Redevelopment Strategic Plan. The Plan for Economic Development and Vitality establishes policies and programs to guide the City to economic self-sufficiency.

Plan for Physical Development

The Plan for Physical Development focuses on the organization of the City's physical environment into a local, functional, and aesthetic pattern consistent with community values. These policies and programs are illustrated on the General Plan Land Use Map. This plan meets the California Government Code land use element mandate to designate the proposed general distribution, general location, and extent of the uses of land for housing, business, industry, and open space. Beyond that requirement, the Plan for Physical Development is also a summary of the manner in which other General Plan issues affect the arrangement and design of development within the General Plan study area. The plan focuses on understanding current land uses, the design and form of present developments, identifies land use constraints to development, land use trends for the future, and agency coordination to ensure compatible land uses.

The Plan for Physical Development also contains a Community Design subsection, which focuses on strengthening the City's physical image and identity. The Community Design subsection provides direction in the form of policies and action programs that call for the development and implementation of comprehensive community design guidelines that will provide guidance for the creation of an attractive and enduring physical environment.

Housing Element

The Housing Element presents the overall goals, objectives, policies, and action programs the City intends to implement in order to facilitate the provision of housing for existing and future residents of Lancaster. The City prepares the Housing Element to also meet the requirements of State law and achieve certification by the California Department of Housing and Community Development (HCD). State law requires jurisdictions to adequately plan to meet its existing and projected housing needs, including its share of the regional housing need. HCD allocates the region's share of the Statewide housing need to the Councils of Governments (COG) based on population projections and forecasts. SCAG develops the RHNA, allocating the region's share to the cities and counties within the region. Housing elements are required to be updated every eight years.

Lancaster Municipal Code

Municipal Code Title 17, *Zoning*, referred to as the City's Zoning Ordinance, provides the legislative framework to implement the adopted General Plan and pertinent goals, objectives, policies, and programs. Title 17 protects the public health, safety, and general welfare of the visitors to and residents of the City by regulating the use of buildings, structures, and land for residential, commercial, industrial and institutional purposes; regulating location, height, bulk, and area covered by buildings and structures; and controlling lot size, yards, intensity of land use, signs and off-street parking.

The City is divided into zoning districts to implement the General Plan in accordance with the Zoning Map. The zoning districts determine which land uses are permitted within each zoning district, steps required to establish each use, and the basic development standards that apply.

5.1.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Physically divide an established community (refer to Section 8.0, *Effects Found Not To Be Significant*); and/or

b) Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect (refer to Impact Statements LU-1 through LU-3).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.1.4 IMPACTS AND MITIGATION MEASURES

LANCASTER GENERAL PLAN

LU-1 THE PROPOSED PROJECT COULD CONFLICT WITH APPLICABLE GENERAL PLAN POLICIES.

Impact Analysis: The proposed project would adopt the VMT Mitigation Program, which aims to fund transportation demand management (TDM) strategies and VMT-reducing projects within the City. Table 3-1, *Potential VMT-Reducing Improvements*, provides a summary of VMT-reducing improvements that could occur with future funding provided by the proposed program. Table 5.1-1, *General Plan Consistency Analysis*, provides an analysis of the project's consistency with applicable General Plan policies.

Table 5.1-1
General Plan Consistency Analysis

Applicable General Plan Policies	Project Consistency Analysis
PLAN FOR THE NATURAL ENVIRONMENT	
GOAL 3: To identify the level of natural resources needed to support existing and future development within the City and its sphere of influence, and ensure that these resources are managed and protected.	
OBJECTIVE 3.3: Preserve acceptable air quality by striving to attain and maintain national, State, and local air quality standards.	
Policy 3.3.1: Minimize the amount of vehicular miles traveled.	**Consistent**. The proposed VMT Mitigation Program aims to establish mitigation for projects that exceed the City's VMT thresholds under CEQA in the form of a mitigation fee. The program identifies relevant TDM strategies and VMT-reducing projects within the City to be funded by the program. Contributed funds would fund active transportation infrastructure projects in the City that have the potential to help the City meet its VMT reduction goals. The overall intent of the program is to streamline the SB 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT. As such, the project would be consistent in this regard.
Policy 3.3.2: Facilitate the development and use of public transportation and travel modes such as bicycle riding and walking.	**Consistent**. Table 3-1, *Potential VMT-Reducing Improvements*, provides a summary of VMT-reducing improvements that could occur with future funding provided by the proposed program. As shown in Table 3-1, the project could result in various improvements that facilitate the use of public transportation (e.g., bus bulb-outs), bicycle lanes (e.g., traffic signal modifications for bicycle sharing, two-way cycle tracks, and multi-purpose paths), and sidewalks (e.g., raised crosswalks, pedestrian refuge islands, new traffic signals for pedestrian crosswalks, and neighborhood traffic signs) As such, the project would be consistent in this regard.
Policy 3.3.3: Minimize air pollutant emissions generated by new and existing development.	**Consistent**. The intent of the proposed project is to streamline the SB 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT. Further, as discussed in Section 5.9, *Air Quality*, air quality impacts, including those related to air pollutant emissions, would result in less than significant impacts upon compliance with applicable regulations and proposed mitigation. Future development projects would be required to comply with all applicable Antelope Valley Air Quality Management District (AVAQMD) rules and regulations as well as other control measures to reduce construction emissions; refer to Mitigation Measures AQ-1 and AQ-2. Specifically, Mitigation Measure AQ-1 would require future projects within the City to utilize construction equipment vehicles in proper condition and in tune per manufacturer's specifications to ensure ozone precursor emissions are reduced. Additionally, Mitigation Measure AQ-2 would require a Construction Management Plan and Traffic Control Plan be prepared and implemented to reduce traffic congestion during future temporary construction activities, thus reducing construction-related air quality emissions. Overall, reduction of VMT as a result of project implementation would generally reduce air pollutant emissions associated with mobile sources generated by new and existing development. Thus, the project would be consistent in this regard.

Table 5.1-1 [cont'd]
General Plan Consistency Analysis

Applicable General Plan Policies	Project Consistency Analysis
OBJECTIVE 3.6: Encourage efficient use of energy resources through the promotion of efficient land use patterns and the incorporation of energy conservation practices into new and existing development, and appropriate use of alternative energy.	
Policy 3.6.1: Reduce energy consumption by establishing land use patterns which would decrease automobile travel and increase the use of energy efficient modes of transportation.	**Consistent**. Refer to response to Policy 3.3.1. Implementation of VMT-reducing projects in the City would reduce energy consumption associated with vehicular travel and encourage alternative modes of transportation (e.g., walking, transit use, bicycling).
PLAN FOR ACTIVE LIVING	
GOAL 10: To provide a park, recreation and open space system which enhances the livability of urban and rural areas by providing parks; establishing a comprehensive trails system and meeting the open space and recreational needs of Lancaster residents.	
OBJECTIVE 10.1: Provide sufficient neighborhood and community park facilities such that a rate of 5.0 acres of park land per 1,000 residents is achieved and distributed so as to be convenient to Lancaster residents.	
Policy 10.1.1: Provide opportunities for a wide variety of recreational activities and park experiences, including active recreation and passive open space enjoyment within a coordinated system of local, regional, and special use park lands areas.	**Consistent**. As shown in Table 3-1, the project could result in various improvements that add to a coordinated system of local, regional, and special use park lands areas (e.g., construction of sidewalks, cycle tracks, medians, multi-purpose paths, etc.) As such, the project would be consistent in this regard.
OBJECTIVE 10.2: Through the adoption and implementation of a Master Plan of Trails, establish and maintain a hierarchical system of trails (including equestrian, bicycle, and pedestrian trails) providing recreational opportunities and an alternative means of reaching schools, parks and natural areas, and places of employment, and connecting to regional trail systems.	
Policy 10.2.4: Facilitate the use of bicycles as an alternative form of transportation, as well as a form of recreation (see also Policy 14.4.3 and related Specific Actions of the Plan for Physical Mobility).	**Consistent**. As shown in Table 3-1, the project would fund various transportation infrastructure improvements that facilitate the use of bicycles as an alternative form of transportation. These improvements may include traffic signal modifications for bicycle sharing, two-way cycle tracks, and multi-purpose paths. As such, the project would be consistent in this regard.
PLAN FOR PHYSICAL MOBILITY	
GOAL 14: A well-balanced transportation and circulation system which provides for the efficient and safe transport of goods and people within and through the City of Lancaster; and which balances concerns for mobility with concerns for safety and the quality of the City's living environment.	
OBJECTIVE 14.1: Maintain a hierarchical system which balances the need for free traffic flow with economic realities, such that streets are designed to handle normal traffic flows with tolerances to allow for potential short-term delays at peak hours, (reference the Transportation Master Plan for details).	
Policy 14.1.1: Design the City's street system to serve both the existing population and future residents.	**Consistent**. As shown in Table 3-1, the program would fund various transportation infrastructure improvements that can reduce Citywide total VMT and contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community. New and widened sidewalks, restriped roadways, two-way cycle tracks, roadway medians, widened shoulders, and multi-purpose paths could be developed. The potential transportation improvements would enhance the City's street system to serve both the existing population and future residents. As such, the project would be consistent in this regard.

Table 5.1-1 [cont'd]
General Plan Consistency Analysis

Applicable General Plan Policies	Project Consistency Analysis
Policy 14.1.2: Maintain and improve the operation of the roadway network by adhering to the circulation system improvements of the Transportation Master Plan for the development and operation of the system, while providing the flexibility to allow consideration of innovative design solutions.	**Consistent**. As discussed in Section 3.3, *Project Characteristics*, the *Master Plan of Complete Streets* (June 26, 2018) was one of the documents reviewed that helps in identifying unfunded, planned infrastructure improvement projects within Lancaster that contribute towards reducing Citywide VMT and could be funded by the proposed program. Thus, the project would be consistent in this regard.
OBJECTIVE 14.4: Reduce reliance of the use of automobiles and increase the average vehicle occupancy by promoting alternatives to single-occupancy auto use, including ridesharing, non-motorized transportation (bicycle, pedestrian), and the use of public transit.	
Policy 14.4.1: Support and encourage the various public transit companies, ridesharing programs and other incentive programs, that allow residents to utilize modes of transportation other than the private automobile, and accommodate those households within the Urbanizing Area of the City that rely on public transit.	**Consistent**. Refer to response to Policies 3.3.2, 10.2.4 and 14.1.2.
Policy 14.4.2: Promote the use of alternative modes of transportation through the development of convenient and attractive facilities that support and accommodate the services.	**Consistent**. Refer to response to Policies 3.3.2 and 10.2.4.
Policy 14.4.3: Encourage bicycling as an alternative to automobile travel for the purpose of reducing vehicle miles traveled (VMT), fuel consumption, traffic congestion, and air pollution by providing appropriate facilities for the bicycle riders (see also Policy 10.2.4 and subordinate specific actions of the Plan for Active Living).	**Consistent**. Refer to response to Policies 3.3.1, 3.3.2, and 10.2.4.
Policy 14.4.4: Encourage commuters and employers to reduce vehicular trips by implementing Transportation Demand Management strategies.	**Consistent**. Refer to response to Policy 3.3.1.
Policy 14.4.5: Design transportation facilities to encourage walking, provide connectivity, ADA accessibility, and safety by reducing potential auto/pedestrian conflicts.	**Consistent**. As shown in Table 3-1, the proposed program would fund various transportation infrastructure improvements, including those related to pedestrian amenities. Potential improvements include rectangular rapid flashing beacons, raised crosswalks, curb pop-outs, pedestrian refuge islands, new traffic signals for pedestrian crosswalks, neighborhood traffic circles, miscellaneous minor traffic calming features, new sidewalks, widened sidewalks, and multi-purpose paths. As such, the project would be consistent in this regard.
PLAN FOR ECONOMIC DEVELOPMENT AND VITALITY	
GOAL 16: To promote economic self-sufficiency and a fiscally solvent and financially stable community.	
OBJECTIVE 16.4: Promote the revitalization of Downtown Lancaster as the Urban Center of the Antelope Valley creating a mix of cultural, recreational, social, economic and residential activities.	

Table 5.1-1 [cont'd]
General Plan Consistency Analysis

Applicable General Plan Policies	Project Consistency Analysis
Policy 16.4.1: Continue to promote the creation of a transit village development district around the Metrolink commuter rail station to provide opportunities for transit-oriented development, including mixed-use housing, shopping, public services, employment opportunities and cultural/recreational activities within a safe, pedestrian-friendly environment.	**Consistent**. As shown in Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*, several of the proposed VMT-reducing intersection improvements are located in the vicinity of the Metrolink commuter rail station, located at 44812 Sierra Highway. The proposed program would fund various transportation infrastructure improvements, which would encourage development in the area and provide opportunities for transit-oriented development around the Metrolink commuter rail station. Thus, the project would be consistent in this regard.
OBJECTIVE 16.6: Ensure that new development pays for its fair and equitable infrastructure and public facilities costs.	
Policy 16.6.1: Require new development to construct and/or pay for new on-site capital improvements necessitated by their project, consistent with performance criteria identified in Objective 15.1.	**Consistent**. As detailed in Section 3.2, *Background and History*, the implementation of SB 743 and the City's recently adopted VMT Guidelines have resulted in smaller development projects triggering potentially significant VMT impacts under CEQA with no feasible mitigation to offset such impacts. The proposed VMT Mitigation Program establishes mitigation for projects that exceed the City's VMT thresholds in the form of a mitigation impact fee. These fees would be utilized to fund identified VMT-reducing transportation infrastructure projects in Lancaster to help the City meet its VMT reduction goals. As such, project implementation would provide opportunities for new development to construct and/or pay for new on-site capital improvements (e.g., VMT-reducing improvements), and the project would be consistent in this regard.
PLAN FOR PHYSICAL DEVELOPMENT	
GOAL 19: To achieve an attractive and unique image for the community by creating a sustainable, cohesive and enduring built environment.	
OBJECTIVE 19.2: Integrate new development with established land use patterns through quality infill to enhance overall community form and create a vibrant sense of place.	
Policy 19.2.2: Create walkable, mixed-use, transit-accessible neighborhoods and commercial districts that provide opportunities for young and old to live, work, shop, and recreate.	**Consistent**. Refer to response to Policies 3.3.2 and 14.1.1.
Policy 19.2.5: Create a network of attractive paths and corridors that encourage a variety of modes of transportation within the city (see also Policy 3.8.1).	**Consistent**. Refer to response to Policies 3.3.2 and 14.1.1.
Source: City of Lancaster, *City of Lancaster General Plan 2030*, July 14, 2009.	

As demonstrated in Table 5.1-1, the proposed project would be consistent with applicable General Plan policies and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LANCASTER MUNICIPAL CODE

LU-2 THE PROPOSED PROJECT COULD CONFLICT WITH LANCASTER MUNICIPAL CODE STANDARDS OR REGULATIONS.

Impact Analysis: The proposed VMT Mitigation Program would fund future transportation improvement projects that contribute towards reducing Citywide VMT. The program would be an ordinance adopted into the Municipal Code. Future transportation improvements funded by the proposed program would be subject to existing Municipal Code standards and regulations, including Title 12, *Streets, Sidewalks, and Public Places*. As such, the proposed program would not conflict with the Municipal Code and less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

LU-3 THE PROPOSED PROJECT COULD CONFLICT WITH SCAG'S 2020-2045 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY GOALS.

Impact Analysis: SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted 2020-2045 RTP/SCS. SCAG refers to *CEQA Guidelines* Section 15206, *Projects of Statewide, Regional or Areawide Significance*, in determining whether a project meets the criteria to be deemed regionally significant. The proposed VMT Mitigation Program establishes mitigation for projects that exceed the City's VMT thresholds in the form of a mitigation fee and is not considered regionally significant based on criteria outlined in *CEQA Guidelines* Section 15206. Nonetheless, as a transportation-related policy program, the project is reviewed for consistency with the 2020-2045 RTP/SCS goals as detailed in Table 5.1-2, *SCAG 2020-2045 RTP/SCS Consistency Analysis*.

Table 5.1-2
SCAG 2020-2045 RTP/SCS Consistency Analysis

Goal	Consistency Statement
Goal 1. Encourage regional economic prosperity and global competitiveness.	Not Applicable. Specifically, Goal 1 of the 2020-2045 RTP/SCS is not adopted for the "purpose of avoiding or mitigating an environmental effect" per Appendix G of the CEQA Guidelines.
Goal 2. Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent: No land use development would occur as part of the project. However, the proposed project would fund VMT-reducing transportation improvements, such as bus bulb-outs, traffic signal modifications for bike phasing, neighborhood traffic circles, raised crosswalks, and other traffic calming features that would provide and expand multimodal transportation amenities and opportunities in the City. As such, the project would improve mobility, accessibility, reliability, and travel safety in the project area, which indirectly connects to the overall mobility, accessibility, reliability, and travel safety of the people and goods in the SCAG region.
Goal 3. Enhance the preservation, security, and resilience of the regional transportation system.	Not Applicable. Specifically, Goal 3 of the 2020-2045 RTP/SCS is not adopted for the "purpose of avoiding or mitigating an environmental effect" per Appendix G of the CEQA Guidelines. Nevertheless, project implementation would accommodate future improvements of roadways within the City. As shown on Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*, the program would provide funding for various improvements (e.g., intersection improvements, bike-specific roadway improvements, pedestrian-specific improvements, off-street path, and traffic calming features), all of which would enhance the preservation, security, and resilience of the regional transportation system. Additionally, as noted in Section 5.8, *Transportation*, the project would not substantially increase hazards due to a geometric design feature or incompatible uses. Thus, the project would indirectly ensure the security/safety of the City's transportation network.
Goal 4. Increase person and goods throughput and travel choices within the transportation system.	Not Applicable. Specifically, Goal 3 of the 2020-2045 RTP/SCS is not adopted for the "purpose of avoiding or mitigating an environmental effect" per Appendix G of the CEQA Guidelines. Nonetheless, as discussed in response to Goal 2, the project would provide and expand multimodal transportation amenities and opportunities in the City.
Goal 5. Reduce greenhouse gas emissions and improve air quality.	Consistent. As detailed in Section 5.10, *Greenhouse Gas Emissions*, project-related GHG emissions would not include emissions from indirect sources as the funded transportation improvements would not involve any building construction that may use natural gas, water, or generate solid waste during operation. Similarly, future transportation improvements would not generate area source emissions as no building construction would occur. Additionally, future funded transportation improvements would reduce mobile source emissions as the intent of the proposed program is to reduce Citywide VMT. Further, all future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA to evaluate project-level GHG impacts and to identify any required mitigation. Overall, project-related GHG impacts would be less than significant.

Table 5.1-2 [cont'd]
SCAG 2020-2045 RTP/SCS Consistency Analysis

Goal	Consistency Statement
	As discussed in Section 5.9, *Air Quality*, air quality impacts, including those regarding air pollutant emissions, would result in less than significant impacts upon compliance with applicable regulations and proposed mitigation measures. Future development projects would be required to comply with all applicable AVAQMD rules and regulations as well as other control measures to reduce construction emissions; refer to Mitigation Measures AQ-1 and AQ-2. Specifically, Mitigation Measure AQ-1 would require future projects within the City to utilize construction equipment vehicles in proper condition and in tune per manufacturer's specifications to ensure ozone precursor emissions are reduced. Additionally, Mitigation Measure AQ-2 would require a Construction Management Plan and Traffic Control Plan be prepared and implemented to reduce traffic congestion during future temporary construction activities, thus reducing construction-related air quality emissions. Overall, reduction of VMT as a result of project implementation would generally reduce greenhouse gas emissions and would not contribute to the degradation of air quality in the region. The project would be consistent in this regard.
Goal 6. Support healthy and equitable communities.	Not Applicable. Specifically, Goal 6 of the 2020-2045 RTP/SCS is not adopted for the "purpose of avoiding or mitigating an environmental effect" per Appendix G of the CEQA Guidelines. Nonetheless, the project would fund various VMT-reducing multimodal transportation improvements for bicyclists (e.g., traffic signal modifications for bicycle sharing, two-way cycle tracks, and multi-purpose paths), pedestrians (e.g., raised crosswalks, pedestrian refuge islands, new traffic signals for pedestrian crosswalks, and neighborhood traffic signs), and transit users (e.g., bus bulb-outs) that would contribute towards a more healthy and equitable community.
Goal 7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. As discussed, the proposed VMT Mitigation Program identifies relevant TDM strategies and VMT-reducing projects within the City to be funded by the program. Contributed funds may be applied in VMT efficient areas where active transportation infrastructure projects in the City have the potential to help the City meet its VMT reduction goals. As shown in Table 3-1, the project could result in various transportation improvements that would make the City's existing transportation network more efficient and equitable for vehicles, pedestrians, bicyclists, and transit users. As such, the project would support an integrated regional development pattern and transportation network.
Goal 8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Not Applicable. Specifically, Goal 8 of the 2020-2045 RTP/SCS is not adopted for the "purpose of avoiding or mitigating an environmental effect" per Appendix G of the CEQA Guidelines. Nonetheless, the project would fund various VMT-reducing transportation improvements that would make the City's transportation network more efficient.

Table 5.1-2 [cont'd]
SCAG 2020-2045 RTP/SCS Consistency Analysis

Goal	Consistency Statement
Goal 9. Encourage development of diverse housing types in areas well supported by multiple transportation options.	Consistent. VMT efficient zones are areas of the City where the VMT is already 15 percent or more below the adopted thresholds for the type of use. The proposed project is intended to enhance and expand VMT efficient zones within the City by improving these areas with program-funded transportation improvements. Further, as detailed in Section 3.2, *Background and History*, the impact fee established by the proposed program would not be applicable if a project screens out of VMT analysis or is located in a VMT efficient zone. As such, the project would incentivize future development, including housing, to be located in these VMT efficient zones. Future developments would also be able to take advantage of the transportation amenities funded by the program. As such, the project would encourage development of diverse housing types in areas well supported by multiple transportation options.
Goal 10. Promote conservation of natural and agricultural lands and restoration of critical habitats.	Consistent. As discussed in Section 8.0, *Effects Found Not To Be Significant*, and Section 5.3, *Biological Resources*, the project would not have significant impacts on natural and agricultural lands or impede restoration of critical habitats.
Source: Southern California Association of Governments, *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*, September 3, 2020.	

As detailed in Table 5.1-2, the proposed project would be consistent with all applicable goals of the 2020-2045 RTP/SCS. As such, the proposed project would not conflict with SCAG's 2020-2045 RTP/SCS, and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED PROJECTS, COULD CONFLICT WITH LAND USE PLANS, POLICIES OR REGULATIONS ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT.**

Impact Analysis: Cumulative projects developed in accordance with the General Plan would be required to undergo project-level environmental review under CEQA and the City's discretionary review process to determine potential land use planning impacts. Each cumulative project would be

analyzed independent of other projects, within the context of their respective land use and regulatory setting. As part of the review process, each cumulative project would be required to demonstrate compliance with the provisions of the project site's land use designation(s) and zoning district(s). Each project would be analyzed to ensure consistency and compliance with the General Plan goals and policies, Municipal Code regulations, and other applicable land use plans or policies.

As analyzed above, the proposed project would be consistent with applicable goals, policies, and standards from the General Plan, Municipal Code, and 2020-2045 RTP/SCS. As such, the proposed project would not significantly contribute towards a cumulative impact in this regard. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to land use and planning have been identified.

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5.2 Aesthetics/Light and Glare

5.2 AESTHETICS/LIGHT AND GLARE

This section evaluates the visual quality of the City and assesses the potential for visual impacts associated with implementation of the proposed VMT Mitigation Program.

5.2.1 EXISTING SETTING

SCENIC RESOURCES

Scenic resources include unique visual features that provide attractive views. Major visual resources within the City include the foothills area in the southwest corner of the City, Quartz Hill in the south-central portion of the City, and Little Rock Wash in the eastern portion of the City. Little Buttes and the Piute Ponds are located outside of the City limits but are also scenic resources in the project vicinity.

TOPOGRAPHY

Lancaster and its surrounding areas are part of the Mojave Desert Basin and are relatively flat. However, within the central portions of the City, the mountains to the south provide significant viewsheds. The most prominent local topographic feature within the City is Quartz Hill, located in the southwestern area of Lancaster. Quartz Hill rises over 200 feet above the nearby unincorporated community of Quartz Hill, immediately south of the City. This community has long had the atmosphere and characteristics of a small town. Over the past few years, large areas surrounding the Quartz Hill community have been developed, primarily with residential subdivisions and custom homes.

DESERT ENVIRONMENT

Scenic views of the desert are available throughout much of the City's undeveloped areas. Long-range views of the rugged San Gabriel mountains to the south, the Sierra Pelonas to the southwest and west, and the Tehachapi Mountains to the northwest are available from the City and surrounding area, including the Antelope Valley Freeway (State Route 14 [SR-14]). The unique desert scene of Lancaster is directly associated with Joshua trees (*Yucca brevifolia*) and juniper shrubs, which are most plentiful in the eastern and southern portions of the City. The Prime Desert Woodland Preserve, located on Avenue K-8 and 35th Street West, also includes numerous Joshua trees.

The desert flora of the Antelope Valley region provides a significant visual resource during various times of the year. In the spring, the Antelope Valley exhibits brilliant displays of orange, yellow, and purple wildflowers. The Antelope Valley California Poppy Reserve State Natural Reserve, located approximately 15 miles west of the City near 130th Street West and Avenue I, is a State-protected reserve created to preserve these sensitive wildflowers. The reserve contains nature and hiking trails and an interpretive center where tourists can observe and learn more about some of the more colorful residents of the valley. Additionally, the Arthur B. Ripley Desert Woodland State Park is located west

of the Antelope Valley California Poppy Reserve State Natural Reserve on Lancaster Road at 210th Street West. The Arthur B. Ripley Desert Woodland State Park protects and preserves a stand of native Joshua trees and junipers. The park also features a picnic table and self-guided nature trail with information about the desert wildflowers and animals of the desert woodlands.

LIGHT AND GLARE

Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There are two primary sources of light: light emanating from building interiors passing through windows, and light from exterior sources (i.e., street lighting, building illumination, security lighting, parking lot lighting, and landscape lighting). Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can cause disturbances. Uses such as residences are considered light sensitive since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light source of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare-sensitive uses include residences, transportation corridors, and aircraft landing corridors.

Exterior light sources in the City include exterior and interior commercial and industrial operations, as well as street lighting and vehicular headlights, which are found along main arterials and SR-14, where traffic volumes are highest during the evening. Commercial uses generate light and glare from the exterior as well as interior due to evening hours of operation. Hospital uses are significant sources of light and glare due to the size and height of the buildings and associated parking facilities, hours of operation, and 24-hour traffic generated at the facilities. Additionally, industrial buildings include security lighting features that would contribute towards glare on residential uses in the area.

5.2.2 REGULATORY SETTING

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for the Natural Environment

The General Plan includes the Plan for the Natural Environment, which identifies natural resources suitable for certain levels of protection, provides a management program for those resources consistent with community values, and ensures the City as an active participant in the management of the Antelope Valley's resources. The following objective and policies related to scenic resources are relevant to the proposed project:

Objective 3.8: Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.

Policy 3.8.1: Preserve views of surrounding ridgelines, slope areas and hilltops, as well as other scenic vistas.

Policy 3.8.2: Explore the potential for establishing scenic corridors within the Study Area.

Lancaster Municipal Code

Municipal Code Title 17, *Zoning*, provides the legislative framework to implement and enhance the General Plan by classifying and regulating the uses of land and structures within the City. Specific chapters within Title 17 provide development standards for each of the City's land use zones, including permitted uses, setbacks, landscaping, off-street parking, outdoor lighting, signs, and design requirements, among others.

Municipal Code Chapter 12.12, *Streets, Curbs and Sidewalks*, requires street improvements be installed along the frontage of any lots or parcels improved with construction or erection of any new dwelling or building or any dwelling or building expanded in excess of 50 percent of the existing square footage of that dwelling or building. Specifically, curbs, gutters, sidewalks, streetlights, and paving are required and shall conform to the standards specifications of the City's Development Services Department.

5.2.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form used during preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

- Have a substantial adverse effect on a scenic vista (refer to Impact Statement AES-1);
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (refer to Section 8.0, *Effects Found Not To Be Significant*);
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (refer to Impact Statements AES-2); and/or
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (refer to Impact Statement AES-3).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are

recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.2.4 IMPACTS AND MITIGATION MEASURES

SCENIC VISTAS

AES-1 PROJECT IMPLEMENTATION COULD HAVE A SUBSTANTIAL ADVERSE IMPACT ON A SCENIC VISTA.

Impact Analysis: A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed.[1] Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated Federal and State lands, as well as local open space or recreational areas, may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape of nearby features.

Major scenic visual resources within the City include the foothills area in the southwest corner, Quartz Hill in the south-central portion, and Little Rock Wash in the eastern portion of the City. Additionally, scenic views of the desert, including Joshua tree and juniper shrub plant communities, are afforded throughout much of the City. Long range views of the San Gabriel mountains to the south, Sierra Pelonas to the southwest and west, and the Tehachapi Mountains to the northwest are also available.

The VMT Mitigation Program would fund future transportation improvement projects within the City, including raised crosswalks, widened sidewalks, multi-purpose paths, and traffic calming features, among others; refer to Table 3-1, *Potential VMT-Reducing Improvements*. These improvements would occur as City-initiated projects or as part of future development projects. Most of the improvements would occur within existing public rights-of-way and would not involve structures or other features that could substantially block views or vistas of the City's major visual resources. For transportation improvements implemented as part of development projects, the improvements would occur on-site or along the project frontages. Regardless, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project-level scenic vista impacts and implement required mitigation. As such, impacts associated with the proposed program in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

[1] A viewshed is the geographical area which is visible from a particular location.

SCENIC QUALITY REGULATIONS

AES-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY.

Impact Analysis: The City includes both urbanized and non-urbanized areas. For the purposes of this threshold and given the nature of the proposed program and location of most VMT-reducing improvements within the City, the project's potential to conflict with applicable zoning and other regulations governing scenic quality is evaluated below.

As stated, the proposed program would fund VMT-reducing transportation improvements as either City-initiated projects or development projects. Under either scenario, future improvements would be required to comply with existing City standards related to street improvements. Specifically, Municipal Code Chapter 12.12, *Streets, Curbs and Sidewalks*, requires street improvements (e.g., curbs, gutters, sidewalks, streetlights, and paving) installed along the frontage of any lots or parcels improved with new or expanded structure to conform to the City's Development Services Department's standards and specifications. Additionally, future transportation improvements implemented as part of development projects would be required to comply with zoning-specific development standards governing scenic quality, including setbacks, landscaping, outdoor lighting, and signage per Municipal Code Title 17, *Zoning*. Future improvements may also be located in Specific Plan areas of the City and thus, would be required to comply with development standards and design guidelines governing scenic quality as they relate to roadway design within those areas. All future transportation improvements would also be required to undergo separate environmental review under CEQA and implement project-level mitigation measures, as needed.

Overall, future transportation improvements would be required to comply with existing zoning regulations governing scenic quality and would be ensured as part of the City's plan review process. Thus, future improvements constructed as part of the proposed project would be consistent with the Municipal Code and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LIGHT AND GLARE

AES-3 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CREATE NEW SOURCES OF LIGHT AND GLARE, WHICH COULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS.

Impact Analysis: A significant impact may occur if lighting, as part of the proposed project, exceeds adopted thresholds for light and glare, including exterior lighting or light spillover,[2] or if the proposed project creates a substantial new source of light or glare. Light-sensitive uses in the City are predominantly associated with residential development.

Construction

Future construction activities associated with the transportation improvements could involve temporary glare impacts as a result of construction equipment and materials. However, as stated, the majority of transportation improvements would occur within existing rights-of-way. Therefore, glare generated from construction activities would not be substantial when compared to other existing sources of glare along City roadways (e.g., buildings, structures, and vehicles).

Additionally, construction activities within the City are limited to the hours of 7:00 a.m. to 8:00 p.m. from Monday through Saturday per Municipal Code Section 8.24.040, *Loud, unnecessary and unusual noises prohibited – Construction and building*; no construction activities are allowed on Sundays or holidays. Thus, as no construction activities would be permitted after 8:00 p.m. from Monday through Saturday, or on Sundays/holidays, short-term construction-related impacts pertaining to nighttime lighting are not anticipated.

It should also be noted that all future transportation improvements would be required to undergo separate environmental review under CEQA and would be evaluated on a project-specific level with regards to light and glare construction impacts.

Operations

Most of the anticipated transportation improvements funded by the program would have no operational impacts with regards to light and glare. However, some improvements, including those implemented as part of future development projects, could include additional roadway or pathway lighting within or along existing rights-of-way or at new bus stop shelters. Outdoor lighting requirements for specific zoning districts within the City are detailed in Municipal Code Title 17, *Zoning*. For example, Municipal Code Section 17.08.140, *Outdoor Lighting*, regulates outdoor lighting in residential zones and requires lighting to be directed away from adjacent properties and designed and located in a manner that prevents glare onto adjacent properties. As stated, future transportation improvements and those implemented as part of future development projects would be required to undergo separate environmental review under CEQA to evaluate project-level impacts with regards

[2] Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light source, presence of barriers or obstructions, type of light source, and weather conditions.

to operational light and glare and implement mitigation, as needed. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.2.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

SCENIC VISTAS

- **THE PROJECT COMBINED WITH OTHER CUMULATIVE PROJECTS COULD RESULT IN SIGNIFICANT IMPACTS TO SCENIC VISTAS.**

Impact Analysis: Future cumulative projects developed in accordance with the General Plan could result in adverse impacts to scenic vistas in the City. However, similar to future transportation improvements associated with the VMT Mitigation Program, cumulative projects would be required to undergo project-specific environmental review under CEQA to evaluate project-level impacts to scenic vistas and to determine any required mitigation.

As analyzed above, transportation improvements implemented in accordance with the proposed program are not anticipated to contribute to a cumulative impact with regards to scenic vistas, as these improvements would predominantly be located within or along existing rights-of-way and would not be large enough in scale and height to block or obstruct views compared to existing surrounding structures. Further, future transportation improvements would also be required to undergo separate environmental review under CEQA. Thus, the proposed program would not significantly contribute to cumulative impacts in this regard and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SCENIC QUALITY REGULATIONS

- **THE PROJECT COMBINED WITH OTHER CUMULATIVE PROJECTS COULD CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY.**

Impact Analysis: Under this threshold, future cumulative projects developed in accordance with the General Plan would be evaluated based on whether the project is located in an urbanized or non-urbanized area. If a cumulative project is proposed in an urbanized area, the project would be evaluated based on whether it could conflict with applicable zoning and other regulations governing scenic quality. If a cumulative project is proposed in a non-urbanized area (e.g., rural), it would be evaluated based on whether it could substantially degrade the existing visual character or quality of public views of the site and its surrounding. Regardless, cumulative projects would be required to undergo project-specific environmental review under CEQA to evaluate project-level impacts and to determine any required mitigation. As part of the City's plan review process, the City would review each cumulative project for consistency with applicable General Plan policies and site development standards included in the Municipal Code that aid in governing scenic quality.

As stated, future transportation improvements funded by the proposed program would be required to comply with existing City standards related to street improvements, specifically Municipal Code Chapter 12.12, *Streets, Curbs and Sidewalks*, and zoning-specific land use development standards under Municipal Code Title 17, *Zoning*. Further, should future improvements be located in a Specific Plan area, the improvements would be required to comply with development standards and design guidelines governing scenic quality as they relate to roadway design within those areas. Thus, the proposed project would not significantly contribute to cumulative impacts to scenic quality regulations and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LIGHT AND GLARE

- **THE PROJECT COMBINED WITH OTHER CUMULATIVE PROJECTS COULD CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE, WHICH COULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE CITY.**

Impact Analysis: Development of cumulative projects could result in increased light and glare in the City during construction and operational activities. However, all cumulative development would be required to undergo separate environmental review under CEQA to evaluate project-level impacts associated with light and glare. Additionally, similar to the proposed project, cumulative projects would be required to comply with outdoor lighting requirements specific to each zoning district as detailed in Municipal Code Title 17, *Zoning*.

As stated, short-term and long-term light and glare impacts associated with the project's transportation improvements would be reduced to less than significant levels following conformance with outdoor lighting standards under the Municipal Code. Further, the majority of transportation improvements would occur within or adjacent to existing rights-of-way and would not result in substantial new sources of light and glare compared to existing conditions. Thus, the project would not cumulatively contribute to the creation of substantial new lighting or glare and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.2.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to aesthetics/light and glare have been identified.

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5.3 Biological Resources

5.3 BIOLOGICAL RESOURCES

This section identifies existing biological resources in the City and provides an analysis of potential impacts that may result from project implementation. Existing baseline biological conditions and characteristics, an analysis of the potential direct and indirect impacts on sensitive resources, and appropriate mitigation measures to reduce potential impacts to the extent feasible for those impacts determined to be significant, if any, are described throughout the analysis.

5.3.1 EXISTING SETTING

VEGETATION COMMUNITIES

Based on the General Plan Master Environmental Assessment (MEA), vegetation communities and land cover types occurring throughout the City. A general description of each vegetation community and land cover type within the City is presented below.

Desert Scrub

Desert scrub is a generic habitat term that describes several plant associations, but is generally characterized as a shrub dominated community on sandy soils with a minimal understory of herbaceous plants that occurs in areas of markedly low precipitation. The component species of these habitat types are highly adapted to survival under harsh conditions, and, if perennial, are usually shrub species. Many annual species also occur in these habitats, but are ephemeral in nature, occurring only in good years and only while moisture is present. Many herbaceous perennials will often flower only once every several years when conditions allow. The five plant communities described below fall into the general category of desert scrub.

Mojave Creosote Bush Scrub

Creosote bush (*Larrea tridentata*) scrub occurs extensively throughout the Mojave Desert area and in large patches in the project area. It intermixes with small areas of other desert scrub habitat as well as with non-native, annual grassland habitat. There are occasional western Joshua trees (*Yucca brevifolia*). Burro-weed (*Ambrosia dumosa*) co-occurs in this habitat, along with spiny senna (*Senna armata*), ephedra (*Ephedra nevadensis*), burrobrush (*Hymenoclea salsola*), and box thorn (*Lycium* sp.). Shrubs up to ten feet tall are widely spaced throughout, usually with bare ground, remnant herbs, and debris comprising interspaces. This habitat usually occurs on slopes and alluvial fans in the valley portions of the project area. Soils are well drained, with very low water-holding capacity.

Saltbrush Scrub

This scrub community is characterized by low, grayish, microphyllous shrubs ranging from one to three feet tall. Some succulent species are present. Plant cover is often low, with much bare ground between the widely spaced shrubs. Stands of desert saltbush scrub are typically dominated by a single Atriplex species. Common species associated with this community include silverscale (*Atriplex*

argentea), shadscale (*A. canescens*), saltbush (*A. confertifolia*), wheelscale (*A. elegans*), big saltbush (*A. lentiformis*), hop-sage (*Grayia spinosa*), burrobrush, kochia (*Kochia californica*), box thorn, mesquite (*Prosopis glandulosa*), and seepweed (*Suaeda occidentalis*). Soils in this plant community are generally fine-textured, poorly drained, and with high alkalinity and/or salinity.

Rabbitbrush Scrub

This community is dominated by rubber rabbitbrush (*Chrysothamnus nauseosus*) and is characterized by fairly evenly spaced shrubs, usually to three feet tall. This community is a disturbance associated community most commonly occurring along roadsides, heavily grazed areas, and along the borders of agricultural fields. It is typically one of the first communities to establish after fires.

Shadscale Scrub

Shadscale scrub is characterized by well-spaced, low, intricately branched, often spiny shrubs ranging from one to two feet tall. The two dominant species that typify this community are saltbush and budsage (*Artemisia spinescens*). Other common associates include sand verbena (*Abronia villosa*), blackbush (*Coleogyne ramosissima*), ephedra, winterfat (*Krascheninnikovia lanata*), hop-sage, matchweed (*Gutierrezia* spp.), goldenbush (*Isocoma acradenius*), and kochia. This community most often occurs on poorly drained flats with heavy, somewhat alkaline soil. Conversely, it also occurs on well-drained slopes at higher elevations, frequently intergrading (merges in a series of stages) with other communities, such as Joshua Tree Woodland.

Desert Sink Scrub

Desert sink scrub is very similar to desert saltbush scrub, but it supports more succulent plants that are often more widely spaced and that are adapted to seasonally moist conditions. In many cases, these areas also have high salinity and/or alka, leading to a unique assemblage of plant species and many bare areas containing only plant litter debris. Characteristic species include iodine bush (*Allenrolfea occidentalis*), shadscale, bee plant (*Cleome sparsiflora*), alkali weed (*Cressa truxillensis minima*), western wallflower (*Erysimum capitatum*), kochia, poverty weed (*Monolepis nuttaIIiana*), greasewood (*Sarcobatus vermiculatus*), ditchgrass (*Ruppia cirrhosa*), and jackass clover (*Wislezenia refracta*).

Desert sink scrub contains poorly drained soils with extremely high alkalinity and/or salt content. The water table is frequently high in these areas that generally have a salt crust at the surface. Large areas of bare ground occur throughout this habitat, and expansive soils are evident by the cracking of the soil crust where water temporarily ponded.

Desert Wash

Desert Wash Scrub

Natural runoff from nearby mountains has created various washes and channels, primarily in the southwestern and southeastern portions of the project area. These washes range from depressions which are difficult to identify (such as the northern portions of Amargosa Creek), to channels with steep sides (such as Little Rock Wash). Most of these washes support a variety of desert scrub plants,

such as burro-weed, Parry's saltbush (*Atriplex parryi*), arrowscale (*Atriplex phyllostegia*), rabbitbrush, and burrobrush. Some of the better-defined channels support species such as jimson weed (*Datura wrightii*) and desert buckwheat (*Eriogonum fasciculatum* ssp. *polifolium*). The type and extent of plants a channel supports depends on its topography as well as the amount and frequency of runoff. Steep-sided channels indicate that the infrequent runoff is fast moving, which can scour channel bottoms and slopes of vegetation, while level channels have gentler flows, permitting establishment of vegetation. Furthermore, as desert washes generally do not have year-round flows, few riparian plants are found in this habitat, although taller desert woodland plants may thrive along some of the washes. The most significant natural desert wash within the project area in terms of plant diversity and biological value is Little Rock Wash, located south of 60th Street East and Avenue I. At present, this area is largely undisturbed.

Artificial drainages and washes are also present within the vicinity of developed areas as a result of runoff. As in developed areas, these artificial drainages support a variety of weedy or introduced species such as cheatgrass (*Bromus tectorum*), black mustard (*Brassica nigra*), and doveweed. Little native or other natural vegetation grows in these areas due to the highly disturbed nature of these sites, including regular weed abatement, foot traffic, and continual invasion of non-native plant species that favor disturbed sites.

Desert Woodland

Joshua Tree Woodland

Joshua tree woodland consists of open woodland with Joshua tree typically as the only arborescent species (up to 40 ft high) and numerous shrub species between three and-a-half and 13 feet tall. In many areas of the Antelope Valley, Joshua tree woodland habitat intergrades (merges in a series of stages) with creosote scrub habitat. This community supports little to no herbaceous understory during most of the year.

At lower elevations, Joshua tree woodland intergrades with Mojave creosote bush scrub. Common associate species include California buckwheat (*Eriogonum fasciculatum*), cholla (*Opuntia echinocarpa*), box thorn, beavertail cactus (*Opuntia basiliaris*), cotton-thorn (*Tetradymia axillaris*), Mojave yucca (*Yucca schidigera*), Great Basin sagebrush (*Artemisia tridentata*), burrobrush, desert needlegrass (*Achnatherum speciosum*) and bladder sage (*Salazaria mexicana*). California juniper (*Juniperus californica*) is occasionally found in this habitat. The primary growing season is spring, with many species of ephemeral herbs germinating after rainfall. Joshua tree woodland typically occurs on sandy, loamy, or gravelly, well-drained alluvial slopes.

The California Department of Fish and Wildlife (CDFW) considers the Joshua tree woodland as a threatened habitat within California. It is also recognized as a sensitive habitat by the City of Lancaster. It is endemic to the Mojave and northwest Sonoran deserts and is adapted to harsh desert conditions, requiring high light, well-drained soils, and limited precipitation. Joshua trees exhibit slow growth rates; new seedlings may grow an average of three inches annually for the first 10 years, then growth slows to 1.5 inches per year thereafter. The trunk of a Joshua tree consists of thousands of small fibers and lacks annual growth rings, making it difficult to determine the tree's age, though it is estimated to

grow for up to 200 years. This species is considered very susceptible to disturbance by human activity; it does not tolerate soil compaction, nor is it easily relocated. This may be partially due to its shallow root area and top-heavy branch system.

Joshua tree woodland habitat can be best preserved in large, well-populated stands, with its associated understory plants, that are isolated from human disturbances. Historically, some areas of Joshua tree woodland were cleared for agricultural use, but recently, there has been a progressive loss of Joshua trees to new development in the Antelope Valley, particularly around the Lancaster area.

While many individual trees can be found in the Antelope Valley, especially in the eastern portions of the project area, most trees are isolated, and actual Joshua tree woodlands are limited. The most significant existing Joshua tree stands in the project area are located southwest of downtown Lancaster, as well as northeast and south of Quartz Hill, and in the City at the Prime Desert Woodland Preserve adjacent to Rawley Duntley Park.

Upland Scrub

Mixed Upland Scrub

This inland, montane (highland areas located below the tree-line) association supports elements of several plant communities including chaparral, coastal sage scrub, and Great Basin sage scrub, and is a transition community that occurs in the highest regions of the foothills. It is found on dry, rocky, gravelly slopes in the southwest portion of the study project area. In some areas, it covers the lower foothill slopes and adjacent basins. It is dominated by sagebrush (*Artemisia tridentata*), white sage (*Salvia apiana*), buckwheat, and rabbitbrush. In some areas, chamise (*Adenostoma jasciculatum*) is also found. As elevations rise out of the projectstudy area (to the south), heartier species such as ceanothus (*Ceanothus* spp.), manzanita (*Arctostaphylos* spp.), and scrub oak (*Quercus dumosa*) can be found in isolated locations.

Riparian

Riparian Woodland/Wetlands

Several locations within the project area support riparian (stream-side) or wetland vegetation. The southwestern margin of the project area contains a few isolated springs or seeps. In addition, several open reservoirs or man-made lakes (such as in Apollo Community Regional Park) contain water most of the year. There are no perennial creeks or channels within the project area. Although there is significant runoff during wet periods, flows along the desert washes tend to be heavy which precludes the establishment of extensive riparian growth. Most of these drainages are designated as "blue-line" streams on U.S. Geological Survey (USGS) 7.5-minute quadrangle maps. These drainages generally fall under the jurisdiction of one or more regulatory agency. Riparian vegetation associated with various washes within the project area include willow (*Salix* spp.), cottonwood (*Populus* spp.), white alder (*Alnus rhombifolia*), western sycamore (*Platanus racemosa*), and cattail (*Typha* spp.), among others.

Ruderal

Agriculture

Active farms within the project area are generally well maintained to prevent weed growth. However, fallow or vacant agricultural land can be quickly overrun with local and introduced weedy ruderal species. Many abandoned farms and vacant, open lands support extensive grasslands in the eastern and western portions of the project area. Non-native grasses have supplanted the original native grasses so that only introduced grasses, such as cheatgrass, barley (*Hordeum* spp.), and fescue (*Vulpia* spp.) remain today. Other common weedy species on fallow agricultural lands include Russian thistle, or tumbleweed (*Salsola tragus*), curly dock (*Rumex crispus*), and varieties of mustard (*Brassica* spp.), including black mustard.

Developed Areas

Areas within the City that support a variety of weedy or introduced species included many areas of paved or compacted gravel roads; homes with associated infrastructure and planted, ornamental plant species; vacant lots; and undeveloped parcels. Little native or other natural vegetation grows in these areas due to regular weed abatement. There are also roadside and public areas that have been planted with non-native tree species, such as tamarisk (*Tamarix tetandra*). Typical ruderal species include tumbleweed, mustard (*Hirschfeldia* spp.), red-stemmed filaree (*Erodium cicutarium*), dove weed (*Eremocarpus setigerus*), and occasional common sunflower (*Helianthus* spp.).

SENSITIVE HABITATS

Sensitive habitats are those areas which possess special biological significance, provide habitat for locally unique biotic species/communities, are areas adjacent to essential habitats (for rare, endangered or threatened species), or are located near bodies of water. According to the General Plan MEA, the project area contains the following sensitive vegetation communities: Desert Wash; Joshua Tree Woodland; Valley Needlegrass Grassland; Wildflower Field. Desert Wash and Joshua Tree Woodland are described under 'Vegetation Communities,' above. Valley Needlegrass Grassland and Wildflower Field are further described below.

Valley Needlegrass Grassland

Grasslands are generally defined as open habitats with little or no woody vegetation. In California, most grasses germinate and grow in winter and spring, during winter rains, and set seed prior to the dry, summer season. With the introduction of non-native annual grasslands, increased grazing, changes in fire regime, and other disturbances, most of California's native grasslands are gone and have been replaced with non-native ripgut brome (*Bromus diandrus*), cheatgrass, and wild oats (*Avena fatua*). Historically, most of Central Valley grassland was dominated by native purple needlegrass (*Nassella pulchra*). Open areas between the tussocks of this perennial bunchgrass supported many native wildflowers, rather than the plethora of non-native ruderal species that non-native annual grasslands support. Nearly all of the native Valley Needlegrass Grassland has been replaced by this non-native

annual grassland and, as such, the CDFW has designated Valley Needlegrass Grassland as a sensitive natural habitat.

Wildflower Field

Wildflower Field is an amorphous mix of plants that are known for their conspicuous, annual wildflower displays that dominate an area. Species include California poppy (*Eschscholzia californica*), tidy tips (*Layia* sp.), and lupine (*Lupinus* sp.). This habitat has been designated a sensitive natural habitat by the CDFW, and occurs in flats at the base of buttes on slopes of zero to five percent on sandy or gravelly soils.

SPECIAL-STATUS PLANT SPECIES

Special-status plant species are those that are considered rare, threatened, or endangered by the Federal or State government, or the California Native Plant Society (CNPS). More specifically, a plant species may be considered as special-status if it is included in the CNPS *Inventory of Rare and Endangered Vascular Plants of California* or in the California Natural Diversity Data Base (CNDDB).

Sensitive plant status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread, but exist naturally in small populations.

The CNDDB and CNPS databases were queried for reported locations of special-status plant species in the quadrangles encompassing the City, including the USGS *Lancaster East, Lancaster West, Del Sur, Alpine Butte, Little Butte, Rosamond, Rosamond Lake,* and *Redman, California* 7.5-minute quadrangles. The query identified the following 13 special-status plant species as occurring within the aforementioned quadrangles; refer to Table 5.3-1, *Special-Status Plant Species Recorded in the Project Vicinity*.[1,2]

[1] California Native Plant Society, In*ventory of Rare and Endangered Plants of California (online edition, v9-01 0.0)*, http://www.rareplants.cnps.org/, accessed October 22, 2021.

[2] California Department of Fish and Wildlife, RareFind 5, California Natural Diversity Data Base, California - Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS Lancaster East, Lancaster West, Del Sur, Alpine Butte, Little Butte, Rosamond, Rosamond Lake, and Redman, California 7.5-minute quadrangles, 2021.

Table 5.3-1
Special-Status Plant Species Recorded in the Project Vicinity

Common Name	Scientific Name	Rare Plant Rank[1]
Horn's milk vetch	*Astraglus hornii* var. *hornii*	1B.1
Lancaster milk-vetch	*Astragalus preussii* var. *laxiflorus*	1B.1
Alkali mariposa-lily	*Calochortus striatus*	1B.2
Peirson's morning-glory	*Calystegia peirsonii*	4.2
White pygmy-poppy	*Canbya candida*	4.2
Parry's spineflower	*Chorizanthe parryi var. parryi*	1B.1
Clokey's cryptantha	*Cryptanthan clokeyi*	1B.2
Desert cymopterus	*Cymopterus deserficola*	1B.2
Rosamond eriastrum	*Eriastrum rosamondense*	1B.1
Barstow woolly sunflower	*Eriophyllum mohavense*	1B.2
Sagebrush loeflingia	*Loeflingia squarrosa var. artemisiarum*	2B.2
Short-joint beavertail	*Opuntia basilaris var. brachyclada*	1B.2
California alkali grass	*Puccinellia simplex*	1B.2
Western Joshua tree	*Yucca brevifolia*	--[2]

Notes:
[1] California Native Plant Society (CNPS) California Rare Plant Rank
- 1B Plants rare, threatened, or endangered in California and elsewhere.
- 2B Plants rare, threatened, or endangered in California but more common elsewhere.
- 4 Plants of limited distribution – Watch List.

Threat Ranks
- .1 Seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat).
- .2 Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).

[2] The western Joshua Tree is currently a candidate species for listing under the California Endangered Species Act (CESA). It is anticipated that the California Fish and Game Commission will be making a formal decision regarding the listing at their June 15/16, 2022 meeting. However, as a candidate species, the Joshua tree currently has full protection under CESA.

Source: California Native Plant Society, I*nventory of Rare and Endangered Plants of California (online edition, v9-01 0.0)*, http://www.rareplants.cnps.org/, accessed October 22, 2021.

It should be noted that the identified special-status plant species may not all occur within the project area based on species-specific habitat preferences, distributions, and elevation ranges.

Western Joshua Tree

The Joshua tree is of regional significance in the region and is further described in this section. Joshua trees are a member of the Agave family and native to arid regions in southern California. Standing five to 20 feet tall, Joshua trees have stiff, narrow leaves, and greenish-white flowers that bloom in the spring and are pollinated by moths. Joshua trees are slow-growing and an iconic presence in the high desert. Joshua tree populations have recently been threatened by extreme heat, drought and wildfires. Joshua trees are protected under the California Desert Native Plant Act.

On October 15, 2019, the California Fish and Game Commission (CFGC) received a petition to list the Joshua tree as threatened under the California Endangered Species Act (CESA). In February 2020, CDFW completed a review of the petition, as well as other scientific information available to CDFW. In its review, CDFW determined that the petition provides sufficient scientific information to indicate that the petitioned action may be warranted and on September 22, 2020, the CFGC accepted for

consideration the petition to list the Joshua tree as threatened or endangered under the CESA and made the Joshua tree a candidate species. Effective October 9, 2020, the Joshua tree is a candidate species for listing under CESA. It is anticipated that CFGC will be making a formal decision regarding the listing at their June 15/16, 2022 meeting. However, as a candidate species, the Joshua tree currently has full protection under CESA, and any activity that results in the removal of a Joshua tree, or any part thereof, or impacts the seedbank surrounding one or more Joshua trees is subject to an Incidental Take Permit from CDFW.

SPECIAL-STATUS WILDLIFE SPECIES

Special-status wildlife species include those that are State- or Federally-listed as threatened or endangered, have been proposed for listing as threatened or endangered, have been designated as State or Federal candidates for listing, are considered State Species of Special Concern, or State-designated as Fully Protected.

The CNDDB database was queried for reported locations of special-status wildlife species in the quadrangles encompassing the City, including the USGS *Lancaster East, Lancaster West, Del Sur, Alpine Butte, Little Butte, Rosamond, Rosamond Lake,* and *Redman, California* 7.5-minute quadrangles. The query identified the following 23 special-status wildlife species as occurring within the aforementioned quadrangles; refer to Table 5.3-2, *Special-Status Wildlife Species within the Project Area*.[3,4]

Table 5.3-2
Special-Status Wildlife Species within the Project Area

Common Name	Scientific Name	Federal Status	State Status	CDFW Ranking
Tricolored blackbird	*Agelaius tricolor*	-	ST	SSC
Northern California legless lizard	*Anniella pulchra*	-	-	SSC
Golden eagle	*Aquila chrysaetos*	-	-	FP
Short-eared owl	*Asio flammeus*	-	-	SSC
Burrowing owl	*Athene cunicularia*	-	-	SSC
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	-	-
Ferruginous hawk	*Buteo regalis*	-	-	WL
Swainson's hawk	*Buteo swainsoni*	-	ST	-
Mountain plover	*Charadrius montanus*	-	-	SSC
Western snowy plover	*Charadrius nivosus*	FT	-	SSC
Northern harrier	*Circus hudsonius*	-	-	SSC
Townsend's big-eared bat	*Corynorhinus townsendii*	-	-	SSC
Merlin	*Falco columbarius*	-	-	WL
Desert tortoise	*Gopherus agassizii*	FT	ST	-
Loggerhead strike	*Lanius ludovicanus*	-	-	SSC

[3] California Native Plant Society, In*ventory of Rare and Endangered Plants of California (online edition, v9-01 0.0)*, http://www.rareplants.cnps.org/, accessed October 22, 2021.

[4] California Department of Fish and Wildlife, RareFind 5, California Natural Diversity Data Base, California - Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS Lancaster East, Lancaster West, Del Sur, Alpine Butte, Little Butte, Rosamond, Rosamond Lake, and Redman, California 7.5-minute quadrangles, 2021.

Table 5.3-2 [cont'd]
Special-Status Wildlife Species within the Project Area

Common Name	*Scientific Name*	Federal Status	State Status	CDFW Ranking
Coast horned lizard	*Phrynosoma blainvillii*	-	-	SSC
White-faced ibis	*Plegadis chihi*	-	-	WL
American badger	*Taxidea taxus*	-	-	SSC
Le Conte's trasher	*Toxostoma lecontel*	-	-	SSC
Least Bell's vireo	*Vireo bellii pusillus*	FE	SE	-
Mojave ground squirrel	*Xerospermophilus mohavensis*	-	ST	-

Notes:

U.S. Fish and Wildlife Service (USFWS)

FE Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

FT Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

California Department of Fish and Wildlife (CDFW) Rank

FP Species is fully protected in California under California Fish and Game Code Section 3511 (birds), 4700 (mammals), or 5050 (reptiles and amphibians).

SE Endangered – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST Threatened – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required under the California Endangered Species Act.

SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Source: California Native Plant Society, In*ventory of Rare and Endangered Plants of California (online edition, v9-01 0.0)*, http://www.rareplants.cnps.org/, accessed October 22, 2021.

It should be noted that the identified special-status wildlife species may not all occur within the project area based on species-specific habitat preferences, distributions, and elevation ranges.

SIGNIFICANT ECOLOGICAL AREAS

Significant Ecological Areas (SEAs) are officially designated areas within the County identified as having irreplaceable biological resources. These areas represent the wide-ranging biodiversity of the County and contain some of the County's most important biological resources. Each SEA within the County is configured to support sustainable populations of its component species, and includes undisturbed to lightly disturbed habitat along with linkages and corridors that promote species

movement.[5] Portions of the City are within the San Andreas SEA and Antelope Valley SEA.[6] However, County development standards and regulations related to SEAs are not applicable to properties within the City limits.

5.3.2 REGULATORY SETTING

FEDERAL LEVEL

Endangered Species Act

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (FESA) of 1973. FESA Section 9 prohibits "take" of threatened or endangered species. "Take" under the FESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any Federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Under the FESA, "Critical Habitat" is also designated at the time of listing or within one year of listing. "Critical Habitat" refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event a project may result in take or in adverse effects to a species' designated Critical Habitat, the project proponent may be required to provide mitigation. If the project has a Federal nexus (i.e. occurs on Federal land, is issued Federal permits, or receives any other Federal oversight or funding), the proponent would be required to enter into Section 7 informal and/or formal consultations with the USFWS to obtain, if possible, a biological opinion allowing for incidental take of the species in question. If the project is on private land or would not require any Federal permits, the proponent would be required to prepare a habitat management plan to address the impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted

[5] County of Los Angeles Department of Regional Planning, *Significant Ecological Areas Program*, https://planning.lacounty.gov/site/sea/home/, accessed October 22, 2021.

[6] County of Los Angeles Department of Regional Planning, *Significant Ecological Areas*, https://planning.lacounty.gov/sea/regional_habitat_linkages_and_wildlife_corridors#, accessed October 27, 2021.

species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

Section 404 of the Clean Water Act

Clean Water Act (CWA) Section 404 requires that a permit be obtained from the United States Army Corp of Engineers (USACE) prior to the discharge of dredged or fill materials into any "waters of the United States or wetlands." Waters of the United States are broadly defined in the USACE's regulations (33 CFR 328) to include navigable waterways, their tributaries, lakes, ponds, and wetlands. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Wetlands that are not specifically exempt from Section 404 regulations (such as drainage channels excavated on dry land) are considered to be "jurisdictional wetlands." USACE is required to consult with the USFWS, Environmental Protection Agency (EPA), and State Regional Water Quality Control Board (RWQCB), among other agencies, in carrying out its discretionary authority under Section 404.

USACE grants two types of permits, individual and nationwide. Project-specific individual permits are required for certain activities that may have a potential for more than a minimal impact and necessitate a detailed application. The most common type of permit is a nationwide permit. Nationwide permits authorize activities on a nationwide basis unless specifically limited and are designed to regulate with little delay or paperwork certain activities having minimal impacts. Nationwide permits typically take two to three months to obtain whereas individual permits can take a year or more. To qualify for a nationwide permit, specific criteria must be met. If the criteria restrictions are met, permittees may proceed with certain activities without notifying USACE. Some nationwide permits require a pre-construction notification before activities can begin.

STATE LEVEL

California Endangered Species Act

State-listed threatened and endangered species are protected under provisions of the California Endangered Species Act (CESA). Activities that may result in "take" of individuals (defined in CESA as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by the CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a Species of Special Concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection.

California Fish and Game Code

Lake and Streambed Alteration Program

California Fish and Game Code (CFGC) Sections 1600 through 1616 establish a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Section 1602 requires any person, State, or local governmental agency or public utility to notify the CDFW before beginning any activity that would do one or more of the following:

1. Substantially obstruct or divert the natural flow of a river, stream, or lake;

2. Substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or

3. Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that would take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

California Native Plant Protection Act

CFGC Sections 1900 through 1913 were developed to preserve, protect, and enhance rare and endangered plants in California. The act requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the California Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

Section 3500, 3503.5, 3511, 4700, 5050, and 5515

The CDFW administers the CFGC. There are particular sections of the CFGC that are applicable to natural resource management. For example, CFGC Section 3503 makes it unlawful to destroy the nests or eggs of any birds that are protected under the MBTA. Furthermore, any birds in the orders Falconiformes or Strigiformes (i.e., birds of prey) are protected under CFGC Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW would be required prior to the removal of any bird of prey nest that may occur on a project site. CFGC Sections 3511, 4700, 5050, and 5515 list fully protected bird, mammal, reptile and amphibian, and fish species, respectively. The CDFW is unable to authorize the issuance of permits or licenses to take these species. Examples of species that are State fully protected include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). CFGC Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

REGIONAL LEVEL

West Mojave Plan

The West Mojave Plan (WMP) is a Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) prepared by the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), and adopted as an amendment to the California Desert Conservation Area (CDCA) Plan in March 2006. The planning area covers approximately 9.3 million acres in the western portion of the Mojave Desert, covering parts of San Bernardino, Los Angeles, Kern, and Inyo Counties. The WMP (1) presents a comprehensive strategy to conserve and protect the desert tortoise, the Mohave ground squirrel, and nearly 100 other sensitive plants and animals and the natural communities of which they are a part, and (2) provides a streamlined program for complying with the requirements of the California and Federal Endangered Species Acts. Other agencies did not adopt the HCP proposed in the WMP to cover their jurisdictions, and therefore the adopted plan only applies to BLM lands.

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for the Natural Environment

The General Plan includes the Plan for the Natural Environment, which identifies natural resources suitable for certain levels of protection, provides a management program for those resources consistent with community values, and ensures the City as an active participant in the management of the Antelope Valley's resources. The General Plan recognizes the Antelope Valley as a unique biological environment on the edge of the Mojave Desert and adjacent to the San Gabriel Mountains whose biological resources face ongoing and increased pressures from existing and increasing urbanization. The following objective and policies are applicable to the project:

Objective 3.4: Identify, preserve and maintain important biological systems within the Lancaster sphere of influence, and educate the general public about these resources, which include the Joshua Tree - California Juniper Woodlands, areas that support endangered or sensitive species, and other natural areas of regional significance.

Policy 3.4.1: Ensure the comprehensive management of programs for significant biological resources that remain within the Lancaster sphere of influence.

Policy 3.4.2: Preserve significant desert wash areas to protect sensitive species that utilize these habitat areas.

Policy 3.4.3: Encourage the protection of open space lands in and around the Poppy Preserve, Ripley Woodland Preserve and other sensitive areas to preserve habitat for sensitive mammals, reptiles, and birds, including raptors.

Policy 3.4.4: Ensure that development proposals, including City sponsored projects, are analyzed for short- and long-term impacts to biological resources and that appropriate mitigation measures are implemented.

Policy 3.4.5: Encourage educational programs that:

- promote awareness of local biological resources;
- inform about potential protection and preservation programs;
- foster community attitudes and behaviors that protect local plants and wildlife;
- encourage community involvement in protection programs.

Lancaster Municipal Code

Municipal Code Chapter 15.66, *Biological Impact Fee*, establishes a biological impact fee to mitigate long-term incremental impacts of new development on biological resources on a regional basis. The fee is based upon expected regional effects from new development and fees necessary to contribute to the City's "fair share" to mitigate impacts on a regional basis. The fee applies to all new development on vacant land which has not been previously developed. This includes land subdivisions, new development approvals, and requests for extension.

5.3.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact to biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (refer to Impact Statement BIO-1);

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (refer to Impact Statement BIO-2);

- Have a substantial adverse effect on Federally protected wetlands as defined by Section 4040 of the Clean Water Act (including, but not limited to, march, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (refer to Impact Statement BIO-3);

- 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 (refer to Impact Statement BIO-4);

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (refer to Impact Statement BIO-5);

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards/criteria, the effects of the proposed program have been categorized as either a "less than significant impact" or "significant and unavoidable impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.3.4 IMPACTS AND MITIGATION MEASURES

SPECIAL STATUS SPECIES

BIO-1 FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROJECT COULD POTENTIALLY RESULT IN A SUBSTANTIAL ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON ANY SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS SPECIES IN LOCAL OR REGIONAL PLANS, POLICIES, OR REGULATIONS, OR BY THE CALIFORNIA DEPARTMENT OF FISH AND GAME OR U.S. FISH AND WILDLIFE SERVICE.

Impact Analysis: As stated above, several special-status plant and wildlife species have been recorded within the USGS *Lancaster East, Lancaster West, Del Sur, Alpine Butte, Little Butte, Rosamond, Rosamond Lake,* and *Redman, California* 7.5-minute quadrangles that encompass the project area. The program would establish a VMT mitigation mechanism for future development projects that exceed the City's VMT thresholds in the form of a mitigation fee. As such, the program would fund VMT-reducing transportation improvements within the City. Potential improvements would primarily occur within existing rights-of-way or within the development footprint of future development projects and thus, would likely avoid adverse impacts to sensitive special-status species. While future transportation improvement projects funded by the program would be largely focused within developed areas, the proposed improvements could still adversely impact sensitive special-status species.

Future transportation improvements would be City-initiated projects or implemented as part of future development projects and would require environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Additionally, per Mitigation Measure BIO-1, a Biological Resources Assessment may be required, as determined by the City, to evaluate potential impacts to on-site biological resources, including sensitive or special-status species. As such, future VMT-reducing improvements would be evaluated on a project-specific level with site-specific analysis and mitigation measures would be identified, as needed. Thus, the proposed program would not result in significant impacts to sensitive special-status species. Impacts in this regard would be less than significant.

Mitigation Measures:

BIO-1 Transportation improvements funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and not exempt from CEQA), and with the potential to reduce or eliminate habitat for native plant and wildlife species or sensitive habitats, as determined by the City of Lancaster Development Services Department, Community Development Division, shall provide a Biological Resources Assessment prepared by a qualified biologist for review and approval by the Community Development Division. The assessment shall include biological field survey(s) of the project site to characterize the extent and quality of habitat that would be impacted by development. Surveys shall be

conducted by qualified biologists and/or botanists in accordance with California Department of Fish and Wildlife and/or United States Fish and Wildlife Services survey protocols for target species. If no special status/sensitive species, sensitive habitats/natural communities, or Federally protected wetlands are observed during the field survey, then no further mitigation will be required. If biological resources are documented on the project site, the project proponent shall comply with the applicable requirements of the regulatory agencies and shall apply mitigation determined through the agency permitting process.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

BIO-2 FUTURE TRANSPORTATION IMPROVEMENTS FUNDED BY THE PROPOSED PROJECT COULD POTENTIALLY HAVE A SUBSTANTIAL ADVERSE EFFECT ON RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, AND REGULATIONS OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE.

Impact Analysis: Several locations within the project area support riparian (stream-side) or wetland vegetation. The southwestern margin of the project area contains several isolated springs or seeps. In addition, several open reservoirs or man-made lakes (such as in Apollo Community Regional Park) contain water most of the year. There are no perennial creeks or channels within the project area; while there is significant runoff during wet periods, flows along the desert washes tend to be heavy which precludes the establishment of extensive riparian growth.

As stated, the majority of future transportation improvements funded by the proposed program would occur within existing disturbed rights-of-way and thus, avoid impacts to riparian habitat or other sensitive natural communities within Lancaster. While future transportation improvement projects funded by the program would be largely focused within developed areas, the proposed improvements could still have the potential to adversely impact riparian habitat or other sensitive natural communities. All future transportation improvements, including those implemented as part of future development projects, would be required to undergo environmental review under CEQA. Additionally, as stated, a Biological Resources Assessment may be required, as determined by the City, to evaluate potential impacts to on-site biological resources, including riparian habitat or other sensitive natural communities; refer to Mitigation Measure BIO-1. Thus, future improvements funded by the proposed mitigation program would be evaluated on a project-specific level with site-specific analysis and implement mitigation measures, as needed. Impacts to riparian habitat or other sensitive natural communities associated with the proposed program would be less than significant.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

BIO-3 THE PROJECT COULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON FEDERALLY PROTECTED WETLANDS AS DEFINED BY SECTION 404 OF THE CLEAN WATER ACT (INCLUDING, BUT NOT LIMITED TO, MARSH, VERNAL POOL, COASTAL, ETC.) THROUGH DIRECT REMOVAL, FILLING, HYDROLOGICAL INTERRUPTION, OR OTHER MEANS.

Impact Analysis: As stated, several locations within the project area support riparian or wetland vegetation, including a few isolated springs or seeps in the southwestern portion of the project area and several open reservoirs and man-made lakes (such as in Apollo Community Regional Park).

The majority of future transportation improvements funded by the proposed program would occur within existing rights-of-way in developed areas of the City and not impact Federally protected wetlands. Nevertheless, all future transportation improvements, including those implemented as part of future development projects, would be required to undergo project-level environmental review under CEQA and be evaluated on a project-specific level with site-specific analysis and implement mitigation measures, as needed. A Biological Resources Assessment may be required, as determined by the City, to evaluate potential impacts to on-site biological resources, including Federally protected wetlands; refer to Mitigation Measure BIO-1. Impacts to wetland habitat are regulated by the USACE pursuant to Section 404 of the CWA, RWQCB in accordance with Section 401 of the CWA, and CDFW under Section 1600 of California Fish and Game Code. Thus, future transportation improvements would be required to comply with existing regulatory requirements in this regard. Overall, impacts to Federally protected wetlands from the proposed VMT Mitigation Program would be less than significant.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

BIO-4 THE PROJECT COULD INTERFERE SUBSTANTIALLY WITH THE MOVEMENT OF NATIVE RESIDENT OR MIGRATORY FISH OR WILDLIFE SPECIES OR WITH ESTABLISHED NATIVE RESIDENT OR MIGRATORY WILDLIFE CORRIDORS, OR IMPEDE THE USE OF WILDLIFE NURSERY SITES.

Impact Analysis: Wildlife corridors are key features for wildlife movement between habitat patches and are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes. Wildlife corridors are typically larger expanses of undeveloped areas.

The majority of future transportation improvements funded by the proposed program would occur within existing rights-of-way in developed areas of the City and thus, would not adversely impact wildlife corridors or nursery sites. However, future transportation improvements implemented as part of future development projects may occur on sites with trees or be located adjacent to trees that could serve as nesting habitat for migratory birds. Therefore, there is potential to impact nesting birds if construction occurs during the avian nesting season (generally from February 1 through August 31).

The MBTA, enforced by the USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird or attempt such actions, except as permitted by regulation. Thus, compliance with existing regulatory requirements would reduce impacts in this regard. Additionally, Mitigation Measure BIO-2 would require a pre-construction nesting bird clearance survey be conducted prior to ground disturbing activities associated with future transportation improvements. As stated, all future transportation improvements would also be required to undergo project-level environmental review under CEQA, be evaluated on a site-specific basis, and implement mitigation, as needed. Therefore, impacts in this regard would be less than significant.

Mitigation Measures:

BIO-2 A pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than fourteen (14) days prior to the start of any vegetation removal or ground disturbing activities associated with a transportation improvement project. The survey shall be conducted by a qualified biologist and cover all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. Further, if an active bird nest is found, the qualified biologist should identify the specific bird species and establish a "no-disturbance" buffer around the active nest to avoid potential direct and indirect impacts. It is further recommended that the qualified biologist periodically monitor any active bird nests to determine if project-related activities disturb the birds and if the "no disturbance" buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the "no-disturbance" buffer may occur following an additional survey by the qualified biologist to search for any new nests in the restricted area.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

BIO-5 THE PROJECT COULD CONFLICT WITH LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE.

Impact Analysis: As stated, several local policies and ordinances protect biological resources within the project area, including the General Plan and Municipal Code. The majority of future transportation improvements funded by the proposed program would occur within existing rights-of-way in developed areas of the City. Future transportation improvements, including those implemented as part of future development projects, would be required to undergo separate environmental review under CEQA with project-specific analysis and mitigation measures, as needed. Additionally, future improvements would be required to comply with Municipal Code Chapter 15.66, *Biological Impact Fee*, where applicable. Thus, compliance with existing regulatory requirements related to the protection of biological resources would reduce impacts to less than significant levels.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.3.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

- **THE PROPOSED PROGRAM, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO CANDIDATE, SENSITIVE, OR SPECIAL STATUS SPECIES IN LOCAL OR REGIONAL PLANS, POLICIES, OR REGULATIONS, OR BY THE CALIFORNIA DEPARTMENT OF FISH AND GAME OR U.S. FISH AND WILDLIFE SERVICE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to sensitive special-status species and any required mitigation.

As stated, all future transportation improvements funded by the proposed program would similarly require separate environmental review under CEQA. Additionally, per Mitigation Measure BIO-1, a Biological Resources Assessment may be required, as determined by the City, to evaluate potential impacts to on-site biological resources, including sensitive or special-status species. Thus, the proposed VMT Mitigation Program itself would not result in cumulatively considerable impacts to sensitive special-status species. Impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **THE PROJECT, IN CONJUNCTION WITH CUMULATIVE PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, AND REGULATIONS OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to riparian habitat and sensitive natural communities. As stated, all future transportation improvements funded by the proposed program would similarly require environmental review under CEQA. Mitigation Measure BIO-1

would also ensure a Biological Resources Assessment is prepared, as determined by the City, to evaluate potential impacts to on-site biological resources, including riparian habitat and sensitive natural communities. Thus, the proposed VMT Mitigation Program itself would not result in cumulatively considerable impacts in this regard, and impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **THE PROJECT, IN CONJUNCTION WITH CUMULATIVE PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO FEDERALLY PROTECTED WETLANDS AS DEFINED BY SECTION 404 OF THE CLEAN WATER ACT (INCLUDING, BUT NOT LIMITED TO, MARSH, VERNAL POOL, COASTAL, ETC.) THROUGH DIRECT REMOVAL, FILLING, HYDROLOGICAL INTERRUPTION, OR OTHER MEANS.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to Federally protected wetlands and any required mitigation. Similar to the proposed project, cumulative projects would also be required to comply with existing regulatory requirements governed by the USACE under Section 404 of the CWA, RWQCB under Section 401 of the CWA, and CDFW under Section 1600 of California Fish and Game Code.

As stated, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA. Additionally, a Biological Resources Assessment may be required, as determined by the City, to evaluate potential impacts to on-site biological resources, including Federally protected wetlands; refer to Mitigation Measure BIO-1. Thus, the proposed program would not result in cumulatively considerable impacts to Federally protected wetlands and impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **THE PROJECT, IN CONJUNCTION WITH CUMULATIVE PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO THE MOVEMENT OF NATIVE RESIDENT OR MIGRATORY FISH OR WILDLIFE SPECIES OR WITH ESTABLISHED NATIVE RESIDENT OR MIGRATOR WILDLIFE CORRIDORS, OR IMPEDE THE USE OF WILDLIFE NURSERY SITES.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to the movement of native

resident or migratory fish or wildlife species and any required mitigation. Future projects would also be required to comply with existing regulation requirements, including the MBTA.

As stated, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA. Mitigation Measure BIO-2 would require a pre-construction nesting bird clearance survey be conducted prior to construction activities associated with future transportation improvements. Thus, upon compliance with existing regulations and Mitigation Measure BIO-2, future transportation improvements, in conjunction with cumulative projects, would result in less than significant cumulative impacts.

Mitigation Measures: Refer to Mitigation Measure BIO-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **THE PROJECT, IN CONJUNCTION WITH CUMULATIVE PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO CONFLICT WITH LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to local policies or ordinances protecting biological resources and any required mitigation. Similar to future transportation improvements implemented in accordance with the proposed program, cumulative project would also be required to comply with existing local policies protecting biological resources, including Municipal Code Chapter 15.66, *Biological Impact Fee*, where applicable.

As stated, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA and comply with existing local policies protecting biological resources. Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.3.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to biological resources have been identified.

5.4 Tribal and Cultural Resources

5.4 TRIBAL AND CULTURAL RESOURCES

The purpose of this section is to identify existing cultural and tribal cultural resources within and around the project site and to assess the significance of such resources. Mitigation measures are recommended, as necessary, to minimize impacts as a result of project implementation.

5.4.1 EXISTING SETTING

NATURAL SETTING

The City is located in the southwestern portion of Antelope Valley, which lies in the western portion of the Mojave Desert, bounded by the San Gabriel Mountains to the south and by the Tehachapi Mountains to the northwest. Regional geologic maps indicate the site is underlain by Holocene-age flood plain deposits comprised of sand, gravel, silt, and clay.[1, 2, 3] Fill soils of varying thickness and material types related to roadways and existing developments are also present over portions of the project area.

CULTURAL SETTING

Prehistoric Period

The City lies in the Antelope Valley where, at least during the Lake Prehistoric and Protohistoric periods, the traditional territories of four Native American groups overlap: the Kitanemuk located principally on the southern and western flanks of the Tehachapi Mountains; the Serrano of the San Bernardino Mountains; the Kawaiisu of the Tehachapi Valley region; and the Tataviam of the Santa Clarita Basin. The Kitanemuk were reported to frequent the springs of the Willow Springs area and other areas on the valley floor. The Kawaiisu used the springs found along the northern edge of the Antelope Valley, including areas on the Edwards Air Force Base, and the southern foothills of the valley from Littlerock Creek northwestward to at least as far west as the Fairmont Buttes area was occupied by the Serrano. The Tataviam occupied the southern foothills at the far western edge of the valley.

Although the Kitanemuk had contact with Garces and Spanish colonizers as early as the 1770s, little historical information is available today on this small group, which may have had no more than 500 to 1,000 members at the peak of its population. The Kitanemuk were apparently represented at the San Fernando, San Gabriel, and San Buenaventura Missions. After the American take-over, some were found on the Tejon Reservation in 1850s, and later on at the Tule River Reservation, where some of

[1] California Geological Survey, *Geological Map of the Del Sur 7.5' Quadrangle, Los Angeles County, California*, 2010, accessed September 28, 2021.
[2] California Geological Survey, *Geological Map of the Lancaster West 7.5' Quadrangle, Los Angeles County, California*, 2010, accessed September 28, 2021.
[3] California Geological Survey, *Geological Map of the Lancaster East 7.5' Quadrangle, Los Angeles County, California*, 2011, accessed September 28, 2021.

their descendants still reside. Spanish influence on Serrano lifeways was negligible until 1819, when a mission assistencia (smaller branch mission) was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the San Bernardino Mountains and the high desert were removed to the nearby missions. At present, most Serrano descendants are found on the San Manuel and the Morongo Indian Reservations, where they participate in ceremonial and political affairs with other Native American groups on an inter-reservation basis.

Historic Period

Antelope Valley

In 1772, a small force of Spanish solider under the command of Pedro Fages became the first Europeans to set foot in the Antelope Valley. The first wave of non-native exploration by a number of famous explorers, including Francisco Garces, Jedediah Smith, Kit Carson, and John C. Fremont, traversed the Antelope Valley, but their explorations brought little change to the region. A later exploratory period starting in the 1840s led to the Antelope Valley's first permanent settlement during the following decade, fueled by California's Gold Rush and new status as American territory.[4] The 1854 establishment of the Fort Tejon military post near Castaic Lake and Grapevine Canyon created a gateway for Antelope Valley traffic.

Several developments were integral to Antelope Valley's growth starting in the mid-1800s, including gold mining in the Kerns and Owens Rivers; cattle ranching; the start of a Butterfield stagecoach route in 1858; construction of the Los Angeles-to-San Francisco telegraph line in 1860; completion of the Southern Pacific Railroad line in 1876; and ample rainfall during the 1880s and early 1890s, which attracted many farmers. The decade-long drought that began in 1894, the worst in southern California's recorded history, decimated the regional economy and forced many settlers to abandon their homesteads, but after the turn of the twentieth century, irrigation methods and electricity brought back local farming. The 1913 completion of the aqueduct spanning 233 miles between the Owens Valley and Los Angeles also revived Antelope Valley's economy. Today, the Antelope Valley retains elements of its agricultural past but its economic base is now supported by aerospace and defense industries.

City of Lancaster

The history of the City of Lancaster began in 1876, when the Southern Pacific Railway Company chose the essentially uninhabited Antelope Valley for its line between the San Joaquin Valley and the Los Angeles Basin, and established a string of regularly spaced sidings and water stops across the desert. Around one of these sidings and water stops, Moses Landley Wicks, a real estate developer who was active in many parts of southern California at the time, purchased from the Southern Pacific Railway Company 640 acres of land and laid out the townsite of Lancaster in 1884. During the land boom of the 1880s and early 1890s, the new town prospered, thanks to the abundance of artesian water in the vicinity. Beginning in 1895, however, several years of continuous drought all but destroyed

[4] County of Los Angeles Library, *Antelope Valley Local History*, https://lacountylibrary.org/antelope-valley-local-history/, accessed September 28, 2021.

Lancaster and other settlements in the Antelope Valley, and forced nearly half of the settlers to abandon their land and leave the region.

Along with the other settlements, Lancaster recovered slowly after the turn of the century. With the adoption of electric water pumps, irrigated agriculture became the primary means of livelihood in the region. Alfalfa, which was first introduced around 1890, emerged as the principal crop in the early 20th century, so much so that "alfalfa is king" became the slogan for the agricultural interests in the valley. After World War II, however, the aerospace and defense industry overtook agriculture as the most important sector in the Antelope Valley economy. In 1977, Lancaster was incorporated as a city. Since then, the City has experienced rapid growth due to the phenomenal expansion of housing development, and increasingly taken on the characteristics of a "bedroom community" in support of the Greater Los Angeles area.

CULTURAL RESOURCES

According to the General Plan EIR, areas in and around downtown Lancaster have experienced substantial growth, necessitating numerous cultural resource surveys for development projects. Those studies encountered a number of archaeological sites, historic-period buildings, and other built environment features. Meanwhile, most of the rural, less populated land to the west, north, and east of the urbanized portions of Lancaster remains un-surveyed for cultural resources. It should be noted that a notable exception to this is the Edwards Air Force Base (EAFB) to the north of the City, which has been intensively surveyed as part of the EAFB's effort to inventory the cultural resources located within its boundaries. As a result of that effort, a number of archaeological sites, including prehistoric camps, lithic scatters, historic-period trash dumps, built environment features such as foundations and irrigation dating to the late 19th and early to mid-20th centuries, and isolates (i.e., sites with fewer than three artifacts) have been recorded on the EAFB. The high percentage of sites found on the EAFB suggests that other undeveloped areas within and adjacent to the City have the potential to contain archaeological resources that have yet to be found.

The General Plan EIR evaluated a study area that encompassed substantially more land than solely the City limits. Based on previously completed cultural resource surveys, at least 432 historical/archaeological sites and 134 isolates have been discovered within the General Plan study area. These resources include prehistoric sites and artifacts (e.g., ground or flaked pieces of stone) and historic-period sites and items (e.g., glass bottle fragments and other refuse). A total of 566 previously recorded historical/archaeological sites and isolates have been found within the boundaries of the General Plan study area.

HISTORICAL RESOURCES

According to the General Plan EIR, the historic-period sites recorded in the General Plan study area include late-19th and early-20th century homesteads, ranches, and townsites; residential and public buildings, foundations, and ruins; irrigation features, wells, and reservoirs; agricultural features; old wagon roads; transmission lines from the early 20th century; the remains of past mining activities; military structures from World War II; aeronautic structures from the post-WWII era; and numerous refuse scatters, all indicative of early settlement and land development activities. Many of these sites

are situated in Lancaster's downtown area and its immediate vicinity, while others are spread out across the less urbanized areas to the north, east and west. The majority of these sites, however, are located within the boundaries of the EAFB outside of the City limits.

A number of the historic-period buildings in the project area are concentrated in the downtown area, especially along Lancaster Boulevard that runs through the heart of downtown Lancaster. According to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) databases, the following buildings are listed in the NRHP and CRHR:[5, 6]

- Antelope Valley Indian Museum – 15701 East Ave M (NRHP and CRHR listed);
- Cedar Avenue Complex – 44843 (44855), 44845 and 44851 Cedar Avenue, 606 Lancaster Boulevard, and Old Jail Building (no address) (NRHP listed); and
- Western Hotel – 557 West Lancaster Boulevard (California Historical Landmark).

NATIVE AMERICAN CONSULTATION

On February 1, 2022, the City sent notification letters to the three tribes that have requested to be notified of projects in accordance with AB 52; refer to Appendix 11.3, *Tribal Consultation*. Responses were received from both the San Manuel Band of Mission Indians and the Fernandeño Tataviam Band of Mission Indians. The San Manuel Band of Mission Indians requested additional project information, including a site plan and grading plan, to determine potential impacts to tribal cultural resources in the project area. The City responded stating that no development is proposed as part of the VMT Mitigation Program and thus, no site plan or grading plan is available for review. No response was received from SMBMI. As such, consultation was assumed to be concluded.

The Fernandeño Tataviam Band of Mission Indians requested to have a conversation regarding the proposed project. Additional information regarding the proposed project was sent to the tribe and a consultation call was held on August 2, 2022. Based on the call, the tribe does not have any concerns with respect to the proposed VMT Mitigation Program. As such, AB 52 tribal consultation with the two tribes concluded.

5.4.2 REGULATORY SETTING

FEDERAL LEVEL

National Historic Preservation Act of 1966

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and

[5] National Park Service, *National Register Database and Research*, https://www.nps.gov/subjects/nationalregister/database-research.htm#table, accessed November 15, 2021.

[6] California Office of Historic Preservation, California Historical Resources, https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=19, accessed November 15, 2021.

local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of SHPO and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 Process

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the Act until shown to be not significant.

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations Part 800) note that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- *Criterion A:* It is associated with events that have made a significant contribution to the broad patterns of our history; or

- *Criterion B:* It is associated with the lives of persons significant in our past; or

- *Criterion C:* It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- *Criterion D:* It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually reserved for archaeological resources. Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a Federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. The Section 106 process

typically excludes cultural resources created less than 50 years ago unless the resource is considered highly significant from the local perspective. Finally, the Section 106 process allows local concerns to be voiced and the Section 106 process must consider aspects of local significance before a significance judgment is rendered.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the Secretary of the Interior's *Standards for Historic Preservation Projects with Guidelines for Applying the Standards* that were developed in 1976, the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* were published in 1995 and codified as 36 Code of Federal Regulations (CFR) 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character, but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

STATE LEVEL

California Environmental Quality Act

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (*CEQA Guidelines* Section 15064.5[a][1-3]).

A resource is considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (Public Resources Code Section 21083.2[a], [b], and [c]). Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.

Assembly Bill 52

On September 25, 2014, Governor Brown signed AB 52. In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent of AB 52 to accomplish all of the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.

2. Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.

3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.

4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.

5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.

6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.

7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources, and to reduce the potential for delay and conflicts in the environmental review process.

8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.

9. Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

California Public Resources Code

California Public Resources Code Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the NAHC; require descendants to be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

The discovery of human remains is regulated in accordance with California Health and Safety Code Section 7050.5, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for Active Living

The Plan for the Active Living Chapter of the General Plan identifies measure for the protection of historical, archaeological and cultural resources. The General Plan recognizes the importance of the unique history of the Antelope Valley and the City by promoting community involvement in the protection, preservation, and restoration of the area's significant cultural, historical, or architectural features. The following objective and policies are applicable to the project:

Objective 12.1: Identify and preserve and/or restore those features of cultural, historical, or architectural significance.

Policy 12.1.1: Preserve features and sites of significant historical and cultural value consistent with their intrinsic and scientific values.

Policy 19.3.4: Preserve and protect important areas of historic and cultural interest that serve as visible reminders of the City's social and architectural history.

5.4.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

SIGNIFICANCE GUIDELINES

Historical Resources

Impacts to a significant cultural resource that affect characteristics that would qualify it for the NRHP or that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (*CEQA Guidelines* Section 15064.5 [b][1], 2000). Material impairment is defined as demolition or alteration "in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify

its inclusion in, or eligibility for inclusion in, the California Register" (*CEQA Guidelines* Section 15064.5[b][2][A]). CEQA states that when a project will cause damage to a historical resource, reasonable efforts must be made to preserve the resource in place or left in an undisturbed state. Mitigation measures are required to the extent that the resource could be damaged or destroyed by a project. Projects that follow the Secretary of the Interior's *Standards for the Treatments of Historic Properties* are typically mitigated below the level of significance.

Archaeological Resources

A significant prehistoric archaeological impact would occur if grading and construction activities result in a substantial adverse change to archaeological resources determined to be "unique" or "historic." "Unique" resources are defined in Public Resources Code Section 21083.2; "historic" resources are defined in Public Resources Code Section 21084.1 and *CEQA Guidelines* Section 15126.4.

Public Resources Code Section 21083.2(g) states:

> *As used in this section, "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:*
>
> 1. *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;*
> 2. *Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or*
> 3. *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

CEQA states that when a project would cause damage to a unique archaeological resource, reasonable efforts must be made to preserve the resource in place or leave it in an undisturbed state. Mitigation measures are required to the extent that the resource could be damaged or destroyed by a project.

Tribal Cultural Resources

AB 52 established a new category of resources in CEQA called tribal cultural resources. (Public Resources Code Section 21074.) "Tribal cultural resources" are either of the following:

> *(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:*
>
> *(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
>
> *(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*

> *(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.*

AB 52 also created a process for consultation with California Native American Tribes in the CEQA process. Tribal governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what kind of environmental assessment is appropriate for a proposed project. The Public Resources Code requires avoiding damage to tribal cultural resources, if feasible. If not, lead agencies must mitigate impacts to tribal cultural resources to the extent feasible.

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

Cultural Resources

- Cause a substantial adverse change in the significance of a historical resource pursuant to *CEQA Guidelines* Section 15064.5 (refer to Impact Statement CUL-1);

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5 (refer to Impact Statement CUL-2);

- Disturb any human remains, including those interred outside of dedicated cemeteries (refer to Section 8.0, *Effects Found Not To Be Significant*);

Tribal Cultural Resources

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) (refer to Impact Statement CUL-3); or

  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe (refer to Impact Statement CUL-3).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.4.4 IMPACTS AND MITIGATION MEASURES

HISTORICAL RESOURCES

CUL-1 THE PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO A HISTORICAL RESOURCE.

Impact Analysis: As stated above, numerous known and potential historical resources have been documented throughout the City and surrounding areas. Historic-period sites of the project area contain late-19th and early-20th century homesteads, ranches, townsites and other structures indicative of early settlement and land development activities. The downtown area and its immediate vicinity contain a large portion of these sites. The Antelope Valley Indian Museum, Cedar Avenue Complex and Old Jail Building, and Western Hotel are located within the City's downtown area and are identified as historical resources in the NRHP and CRHR. The program would establish a mitigation mechanism for future development projects that exceed the City's VMT thresholds in the form of a mitigation fee. As such, the program would fund VMT-reducing transportation improvement within the City. Potential improvements would primarily occur within existing developed rights-of-way or within the development footprint of future development projects and thus, would likely avoid adverse impacts to known historical resources. While future transportation improvement projects funded by the program would be largely focused within developed areas, the proposed improvements could still adversely impact historical resources, particularly historical resources not previously documented.

Future transportation improvements funded by the proposed program would be City-initiated or implemented as part of future development projects. All future improvements would be required to undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Thus, cultural resource assessments, including historical assessments, may be required to analyze project-specific impacts on historical resources as defined under CEQA Guidelines Section 15064.5; refer to Mitigation Measure CUL-1. Implementation of Mitigation Measure CUL-1 would ensure a historical resources assessment is conducted by a qualified architectural historian or historian to evaluate the site for any previously unrecorded potential historical resources that could be impacted by the transportation improvement. Thus, upon implementation of Mitigation Measure CUL-1, the proposed program would not result in significant impacts to historical resources.

Mitigation Measures:

CUL-1 To ensure identification and preservation of potentially historic resources (as defined by CEQA Guidelines Section 15064.5 as a resource listed in, eligible for listing in, or listing

in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register), each transportation improvement funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be conditioned as follows: prior to any construction activities that could impact potential or previously identified historical resources, the project proponent shall provide a historical resources assessment performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history (as defined in 48 Code of Federal Regulations 44716) to the City of Lancaster Planning Department for review and approval. The historical resources assessment shall include a records search at the South Central Coastal Information Center (SCCIC) and a survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. If a historical resource is identified on-site, the resource shall be avoided to the extent feasible.

If relocation, rehabilitation, or alteration of a historical resource is required, the project proponent shall utilize the Secretary of the Interior's Standards for the Treatment of Historic Properties to the maximum extent feasible to ensure the historical significance of the resource is not impaired.

If demolition or significant alteration of a historical resource is required, the resource shall be evaluated, and/or designated in the NRHP, CRHR, or local register, and recordation shall take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards. Recordation shall meet the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering, which defines the products acceptable for inclusion in the HABS/HAER/HALS collection at the Library of Congress. The specific scope and details of documentation shall be developed at the project level in coordination with the City of Lancaster Planning Department and performed prior to the first issuance of any demolition, building, or grading permits.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

ARCHAEOLOGICAL RESOURCES

CUL-2 THE PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO AN ARCHAEOLOGICAL RESOURCE.

Impact Analysis: As stated, several locations within the City and surrounding area have known archaeological resources. Based on previously completed cultural resource surveys, at least 432 historical/archaeological sites and 134 isolates have been discovered within the General Plan study area, including prehistoric sites and artifacts (e.g., ground or flaked pieces of stone) and historic-period

sites and items (e.g., glass bottle fragments and other refuse). While future transportation improvement projects funded by the program would be largely focused within developed areas and within or adjacent to existing rights-of-way, the proposed improvements could still adversely impact previously unknown archaeological resources. For example, resources may be preserved within native soils below disturbances associated with existing commercial, residential, or other developments.

Future transportation improvements funded by the proposed project would be required to undergo separate environmental review under CEQA. Depending on the nature of future improvements, the City may require preparation of a cultural resources assessment to evaluate project- and site-specific impacts on potential archaeological resources. Implementation of Mitigation Measure CUL-2 would ensure a cultural resources assessment is prepared, if required by the City, and that the potential impacts to unknown archaeological resources are reduced to the greatest extent feasible. Additionally, if a resource is unearthed during any excavation and grading activities, Mitigation Measure CUL-3 would require earth-disturbing activities to halt within a 100-meter radius of the find and the project proponent shall retain a qualified archaeologist to evaluate the significance of the find and appropriate course of action. As such, the proposed program would not result in significant impacts to archaeological resources. Impacts in this regard would be less than significant.

Mitigation Measures:

CUL-2 To ensure identification and preservation of archaeological resources within the City of Lancaster, each transportation improvement funded by the proposed Vehicle Miles Traveled Mitigation Program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be screened by the City of Lancaster Planning Department to determine whether a Cultural Resources Assessment is required. Screening shall consider the type of project and whether ground disturbances will occur. Ground disturbances include activities such as grading, excavation, trenching, boring, or demolition that extend below the current grade. If there will be no ground disturbance, then a Cultural Resources Assessment shall not be required. If there will be ground disturbances, prior to issuance of any permits required to conduct ground disturbing activities, the City may require a Cultural Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology.

The Cultural Resources Assessment shall include a California Historical Resources Information System (CHRIS) records search conducted through the South Central Coastal Information Center (SCCIC) and Sacred Land Files (SLF) search through the Native American Heritage Commission (NAHC), review of historical maps, and a Phase I (intensive) pedestrian survey to assess the likelihood for buried archaeological resources to occur. The Cultural Resources Assessment shall meet or exceed standards in the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (1990) and Guidelines for Archaeological Research Designs (1991).

CUL-3 In the event that cultural resources are unearthed during excavation and grading activities of any future transportation improvement project funded by the proposed program, the construction contractor shall cease all earth-disturbing activities within a 100-meter radius of the find and the project proponent shall retain a qualified archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology to evaluate the significance of the finding and appropriate course of action. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. After the find has been appropriately mitigated, work in the area may resume.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

TRIBAL CULTURAL RESOURCES

CUL-3 THE PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO A TRIBAL CULTURAL RESOURCE.

Impact Analysis: As stated above, the City contacted tribes and sent out letters inviting them to consult on the project pursuant to AB 52 on February 1, 2022.

The San Manuel Band of Mission Indians (SMBMI) responded requesting additional project information, including a site plan and grading plan, to determine potential impacts to tribal cultural resources in the project area. The City responded stating that no development is proposed as part of the VMT Mitigation Program and thus, no site plan or grading plan is available for review. No response was received from SMBMI. As such, consultation was assumed to be concluded.

The Fernandeño Tataviam Band of Mission Indians (FTBMI) also responded requesting consultation and mitigation to reduce potential project impacts on tribal cultural resources in the project area. The City consulted with a FTBMI representative on August 2, 2022. City staff sent additional information regarding the proposed project prior to the call and further described the project and explained what the City was trying to achieve on the call. At the conclusion of the call, the FTBMI representative indicated that they have no concerns with the proposed project. As such, consultation has been concluded.

While the proposed VMT Mitigation Program does not involve any development, future transportation improvements implemented in accordance with the program could impact tribal cultural resources during ground-disturbing activities. All future transportation improvements funded by the proposed program would similarly require separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Should future projects require compliance with AB 52, consultation with Native American tribes would occur at a later date and project specific information (e.g., site plans and grading plans) would be available to more accurately determine whether the project could result in potentially significant impacts to tribal cultural resources and help identify appropriate mitigation measures. As such, impacts to tribal cultural resources associated with the adoption of the VMT Mitigation Program itself would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.4.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROJECT AND CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO A HISTORICAL RESOURCE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to historical resources and identify any required mitigation.

As stated, all future transportation improvements funded by the proposed program would similarly require separate environmental review under CEQA to evaluate project-level potential impacts to historical resources and to identify any required mitigation. Implementation of Mitigation Measure CUL-1 would ensure a historical resources assessment is prepared to identify any previously unrecorded historic resources and evaluate impacts of future transportation improvements on such resources. Thus, the proposed program would not cumulatively contribute towards potentially significant impacts with other development in accordance with the General Plan. Cumulative impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure CUL-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **IMPLEMENTATION OF IMPROVEMENTS IN ACCORDANCE WITH THE PROJECT AND OTHER CUMULATIVE PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO AN ARCHAEOLOGICAL RESOURCE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to archaeological resources and any required mitigation.

Future transportation improvements funded by the proposed program would similarly be required to undergo separate environmental review under CEQA. Implementation of Mitigation Measure CUL-2 would also ensure a cultural resources assessment is conducted, as required, to identify any previously unknown archaeological resources and potential impacts of the transportation improvements on such resources. If any resources are uncovered during construction activities, Mitigation Measure CUL-3 would ensure construction activities halt until the find is evaluated by a qualified archaeologist. Thus, future transportation improvements, in conjunction with cumulative projects developed in accordance with the General Plan, would result in less than significant cumulative impacts.

Mitigation Measures: Refer to Mitigation Measures CUL-2 and CUL-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROJECT AND CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO A TRIBAL CULTURAL RESOURCE.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts to tribal cultural resources and any required mitigation.

As stated, while the proposed program does not involve any development, future transportation improvements funded by the program could impact tribal cultural resources during ground-disturbing activities. However, similar to cumulative development projects, all future transportation improvements funded by the program would similarly require separate environmental review under CEQA, which may include consultation with Native American tribes pursuant to AB 52. As such, future transportation improvements would be evaluated for potential impacts to tribal cultural resources, where applicable, and be required to implement mitigation measures to reduce such impacts. Therefore, future transportation improvements, in conjunction with cumulative projects developed in accordance with the General Plan, would result in less than significant cumulative impacts in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to cultural or tribal cultural resources have been identified.

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5.5 Geology and Soils

5.5 GEOLOGY AND SOILS

This section describes the geologic and seismic conditions within the City and evaluates the potential for geologic impacts associated with implementation of the proposed project.

5.5.1 EXISTING SETTING

GEOTECHNICAL CONDITIONS

Regional Geology

The project area is located in the Antelope Valley, which is located within the western Mojave Desert. The Mojave Desert is a wedge-shaped block bounded by the San Andreas Fault Zone on the southwest, the Garlock Fault Zone on the northwest, and the Colorado River on the east. Uplifts of the San Gabriel and Tehachapi Mountains isolated the Mojave Desert from the Pacific Coast and created the interior drainage basins of the western Mojave Desert, such as the Antelope Valley. The Antelope Valley is surrounded by the Tehachapi Mountain range in the north and northwest, and the San Gabriel, Sierra Pelona, and Liebre Mountains to the south and southwest. Geologically, the Antelope Valley is part of the Mojave structural block, which is an elevated desert. The topography of the City generally slopes up to the southwest, with elevations ranging from approximately 2,300 feet in the northeast to 3,500 feet in the southwest. The overall topography of the City is somewhat flat. Major topographic features include Quartz Hill located in the southern portion of the City, and the Fairmont and Antelope Buttes located outside of the City limits west of 110th Street West.

The geology of the region consists of three main rock groups: crystalline rocks of Pre-Tertiary age; volcanic and sedimentary rocks of Tertiary age; and alluvial sedimentary rocks of Quaternary age. The first of the two groups consist of older, hard, consolidated materials from the surrounding mountains and rocky buttes that rise from the valley floor. The Antelope Valley soils profile consists of up to 4,000 feet of alluvial fill underlain by consolidated rocks. The bottom of the rock formations, known as the basement, includes the oldest formation and consists of quartz, monzonite, granite, gneiss, schist and other igneous and metamorphic rocks. The rocks overlying the basement primarily consist of shale, sandstone, conglomerate and siltstone.

Local Geology

The City lies within a seismically active area referred to as the Mojave Desert Geomorphic Province of Southern California, and is located at the western edge of a moving plate in the earth's crust. Defining the boundary of this area is the San Andreas Fault, where the Pacific Plate and the North American Plate meet. The San Andreas Fault is located approximately nine miles south of Lancaster.

Similar to the regional geology, the City's geology consists of the same three main rock groups: crystalline rocks of Pre-Tertiary age; volcanic and sedimentary rocks of Tertiary age; and alluvial sedimentary deposits of Tertiary and Quaternary age. Some of these rock types include schists, quartz

monzonite, and local volcanic formations. The third group comprises younger, unconsolidated alluvial (stream-deposited) materials formed in the wash areas of the lower foothills and stream beds that comprise much of the valley flow, in some locations to depths in excess of 2,000 feet. Consolidated rocks equivalent to Tertiary and older materials underlie this alluvium.

GROUNDWATER

The City is underlain by the Antelope Valley Groundwater Basin. The Antelope Valley Groundwater Basin stores subsurface water that is extracted by the wells of various agencies as a source of supply. Elevations across the valley floor range from 2,300 to 3,500 feet above mean sea level. Bounding the basin are the Garlock Fault Zone to the northwest at the base of the Tehachapi Mountains. The Antelope Valley Groundwater Basin consists of the West Antelope, Neenach, Buttes, Finger Buttes, Lancaster, Pearland and North Muroc sub-basins (aquifers).

SEISMIC HAZARDS

Potential seismic hazards involve primary hazards (i.e., surface fault rupture and seismicity/ground shaking) and secondary hazards including liquefaction, seismically-induced settlement, lateral spreading, seismically-induced landslides, seismically-induced flooding, seiches, and tsunamis. Refer to Section 5.6, *Hydrology and Water Quality*, for an analysis concerning potential impacts involving flooding, seiches, and tsunamis. The primary and secondary seismic hazards with potential to impact the City are discussed below.

Faulting And Seismicity

There are no active faults zones within the City. The nearest active fault to Lancaster is the San Andreas Fault, located approximately nine miles to the south. Additional principal faults that could produce damaging earthquakes in the regional area are the Sierra Madre-San Fernando, Garlock, Sierra Nevada (Owens Valley), and White Wolf Faults.

Surface Fault Rupture

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. The City is not transected by known active or potentially active faults. As discussed above, the active San Andreas fault zone is located approximately nine miles to the south from Lancaster. Therefore, the potential for surface rupture is considered low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

Seismic Ground Shaking

Earthquake events from one of the regional active or potentially active faults near the City could result in strong ground shaking. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform

during seismic ground shaking events. The southern portions of the City could be subjected to more intense seismic shaking associated with a large earthquake along the San Andreas Fault.

Secondary Seismic Hazards

Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time.

The greatest danger from liquefaction occurs in areas where the groundwater table is within 30 feet of ground level, and the soil is poorly consolidated or relatively uncompacted. This condition is characterized by the sudden loss of shearing resistance due to ground shaking combined with an increase in pore water pressure. Subsequently, this often results in the collapse or displacement of building foundations. According to the General Plan MEA, the water table is approximately 60 feet from the surface. Therefore, in most areas of the City, the water table rarely comes within 30 feet of the surface.

According to the California Geological Survey and General Plan MEA, potential liquefaction zones are located in various areas of the City, including along the length of Little Rock Wash, in the eastern portion of the City, and in the vicinity of Amargosa Creek, extending from the area north of Quartz Hill to the northeast to the Los Angeles-Kern County line outside if the City limits; refer to the General Plan MEA Figure 2-6, *Study Area Seismic Hazards Map*.[1]

Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or the earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic ground shaking. Based on the California Geological Survey and General Plan MEA Figure 2-6, *Study Area Seismic Hazards Map*, the southwestern areas of the City directly below the northern slopes of Quartz Hill and the slopes of Portal Ridge have the potential for landslide hazards.[2]

Soil Erosion

Erosion is a process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur on a project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage

[1] California Geological Survey, *Earthquake Zones of Required Investigation*, https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed November 18, 2021.

[2] Ibid.

conditions, and general land uses. As discussed above, the City has relatively flat topography and thus, would have minimal potential for soil erosion. However, grading and development associated with new development of vacant and underutilized sites within the City have the potential to result in soil erosion and loss of topsoil.

Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to subsurface vaults, pipelines, and other improvements.

According to the General Plan MEA, the only soil condition identified in the City that may present a hazard from subsidence is the potential for fissuring. Surface water may enter fissures and move laterally through the soils, eroding the underlying rock material. Outside of the City limits, fissures have developed on the dry lakebed used as a runway at Edwards Air Force Base. Soils at Edwards Air Force Base are a hard clay material, while the problem areas in Lancaster have an almost concrete-like material near the surface called caliche, a cemented deposit of calcium carbonate. According to the General Plan MEA, caliche most often underlies soils within the Sunrise association. Sunrise soils are located in the north-central portion of the City, and in the west-central portion, near the California State Prison; refer to General Plan MEA Figure 2-3, *Soil Stability Issues*.

Compressible/Collapsible Soils

Compressible soils are generally comprised of soils that undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures, and transportation improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present. Areas that have a high potential for fissures are an example of areas with compressible soils.

As stated, and shown on General Plan MEA Figure 2-3, *Soil Stability Issues*, known areas of fissure occurrence are located generally in the north-central area of the City, north of Lancaster Boulevard and in the west-central portion. Therefore, potentially compressible/collapsible soils are present on-site.

Expansive Soils

Soils within the City are primarily characterized by soils of low shrink-swell potential (i.e., expansion), which do not represent a problem for typical construction activities. However, as shown on General Plan MEA Figure 2-3, *Soil Stability Issues*, there is an area north of Lancaster Boulevard and west of 10th Street West, an area near Lancaster Boulevard and 30th Street East, and a small area in the eastern end of the City where the soils are classified as moderately expansive.

PALEONTOLOGICAL RESOURCES

According to the General Plan MEA, the southwest corner of the City consists of a moderately sloping ridge formation that has eroded surface exposures of coarse-grained granitic soils. This formation, being igneous and metamorphic in origin, is not conducive to the preservation of fossils. As such, the southwestern corner of the City is considered low in sensitivity for paleontological resources. However, the area at the base of this formation has developed a thick layer of alluvial sediment that has, over time, eroded from the higher elevations. Because these soils may have buried plant and animal remains during their development, they have a moderate to high potential to contain paleontological resources.

The remainder of the City contains gentler sloping alluvial sediments with finer soils that have developed over time, possibly burying any hard organic materials that were deposited there and preserving them as fossils. The soils in these areas are likely Holocene-age alluvium that is low in sensitivity for paleontological resources, but may overlay older Pleistocene-age alluvium at unknown depths. These Pleistocene-age alluvial soils have a moderate to high potential for paleontological sensitivity, as they have the potential to contain fossil remains of Pleistocene-age mammals.

5.5.2 REGULATORY SETTING

FEDERAL LEVEL

Federal Clean Water Act

The primary goals of the Federal Clean Water Act (CWA) are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for water quality management and control of pollution discharges; it provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, nonpoint-source discharge programs, and wetlands protection. The U.S. Environmental Protection Agency (EPA) has delegated the administrative responsibility for portions of the CWA to State and regional agencies. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City lies within jurisdiction of the Lahontan RWQCB.

Under the NPDES permit program, the EPA establishes regulations for discharging stormwater by municipal and industrial facilities and construction activities. CWA Section 402 prohibits discharge of pollutants to "Waters of the United States" from any point source unless the discharge complies with an NPDES Permit.

Soil and Water Resources Conservation Act

The purpose of the Soil and Water Resources Conservation Act of 1977 is to protect or restore soil functions on a permanent sustainable basis. Protection and restoration activities include prevention of harmful soil changes, rehabilitation of the soil of contaminated sites and of water contaminated by such sites, and precautions against negative soil impacts. If the soil is impacted, disruptions of its natural functions and of its function as an archive of natural and cultural history should be avoided, as far as practicable. In addition, CWA requirements provide guidance for protection of geologic and soil resources through the NPDES permit.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) established the National Earthquake Hazards Reduction Program which is coordinated through the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey (USGS), the National Science Foundation, and the National Institute of Standards and Technology. The purpose of the program is to establish measures for earthquake hazards reduction and promote the adoption of earthquake hazards reduction measures by Federal, State, and local governments; national standards and model code organizations; architects and engineers; building owners; and others with a role in planning and constructing buildings, structures, and lifelines through (1) grants, contracts, cooperative agreements, and technical assistance; (2) development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines; and (3) development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction. The program is intended to improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

U.S. Geological Survey Landslide Hazard Program

The USGS Landslide Hazard Program provides information on landslide hazards, including information on current landslides, landslide reporting, real time monitoring of landslide areas, mapping of landslides through the National Landslide Hazards Map, local landslide information, landslide education, and research.

STATE LEVEL

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Act) (Public Resources Code 2621-2624, Division 2 Chapter 7.5) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Act requires the State Geologist to establish regulatory zones, known as "Earthquake Fault Zones," around the surface traces of active

faults and to issue appropriate maps. Local agencies must regulate most development projects within these zones.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the Seismic Hazards Mapping Act is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards.

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes.

The Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards (i.e., liquefaction and earthquake induced landslides) and formulate mitigation measures prior to permitting most developments designed for human occupancy.

2019 California Building Standards Code

California building standards are published in the California Code of Regulations, Title 24, also known as the California Building Standards Code (CBSC). The CBSC, which applies to all applications for building permits, consists of 11 parts that contain administrative regulations for the California Building Standards Commission and for all State agencies that implement or enforce building standards. Local agencies must ensure development complies with the CBSC guidelines. Cities and counties can adopt additional building standards beyond the CBSC. CBSC Part 2, named the California Building Code (CBC), is based upon the 2019 International Building Code.

Soils Investigation Requirements

California Health and Safety Code Sections 17953–17955 and in Section 1802 of the California Building Code identify requirements for soils investigations for subdivisions requiring tentative and final maps, and for other specified types of structures. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

California Public Resources Code

Paleontological resources are protected under a wide variety of Public Resources Code policies and regulations. In addition, paleontological resources are recognized as nonrenewable resources and receive protection under the Public Resources Code and CEQA. Public Resources Code Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244 states:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

This statute prohibits the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. Public Resources Code Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (State, county, city, and district) lands.

State Water Resources Control Board

Construction General Permit Order 2009-0009-DWQ

The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCBs conduct planning, permitting, and enforcement activities. The NPDES permit is addressed in two parts: construction and post-construction (operations). Construction permitting would be administered by the SWRCB, while post-construction permitting would be administered by the RWQCB.

On November 16, 1990, the EPA published final regulations that established stormwater permit application requirements for specified categories of industries. The regulations provide that discharges of stormwater to waters of the United States from construction projects are effectively prohibited unless the discharge complies with an NPDES Permit. On August 19, 1999, the SWRCB reissued the General Construction Stormwater Permit (Water Quality Order 99-08-DWQ). On December 8, 1999, the SWRCB amended Order 99-08-DWQ to apply to sites as small as one acre.

Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore a facility's original line, grade, or capacity.

The Construction General Permit requires the development of a Stormwater Pollution Prevention Plan (SWPPP). Construction General Permit Section A describes the elements that must be contained in a SWPPP, which include a site map(s), a list of Best Management Practices (BMPs) the discharger would use to protect stormwater runoff, and the placement of those BMPs. Additionally, the SWPPP is required to contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. A project applicant must submit a Notice of Intent (NOI) to the SWRCB, to be covered by the Construction General Permit, and prepare the SWPPP prior to construction. Implementation of the plan begins at commencement of construction and continues through project completion. Upon project completion, the applicant is required to submit a Notice of Termination (NOT) to the SWRCB to indicate that construction is completed.

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for the Natural Environment

The Plan for the Natural Environment evaluates natural and human-induced environments within the General Plan study area and focuses on resources that are suitable for certain levels of maintenance and protection. The Plan identifies "Land Resources" as a focused resource, which includes geologic and paleontological resources within the City. The following objective and policies are relevant to the proposed project:

Objective 3.5: Preserve land resources through the application of appropriate soils management techniques and the protection and enhancement of surrounding landforms and open space.

Policy 3.5.1: Minimize erosion problems resulting from development activities.

Policy 3.5.2: Since certain soils in the Lancaster study area have exhibited shrink-swell behavior and a potential for fissuring, and subsidence may exist in other areas, minimize the potential for damage resulting from the occurrence of soils movement.

Plan for Public Health and Safety

The Plan for Public Health and Safety evaluates the natural and manmade conditions which may pose certain levels of health and safety hazards to life and property within the City, along with a comprehensive program to mitigate those hazards to acceptable levels. The Plan addresses issues regarding geology and seismicity for facilities and the general population. The following objective and policy are relevant to the proposed project:

Objective 4.1: Minimize the potential for loss of life, physical injury, property damage, and social disruption resulting from seismic ground shaking and other geologic events.

Policy 4.1.1: Manage potential seismic hazards resulting from fault rupture and strong ground motion to facilitate rapid physical and economic recovery following an earthquake through the identification and recognition of potentially hazardous conditions and implementation of effective standards for seismic design of structures.

Lancaster Municipal Code

Municipal Code Section 8.16.030, *Disturbing Surface of Land or Causing Wind Erosion Prohibited*, prohibits persons from disturbing or causing the disturbance of surface or subsurface land by excavating, grading, leveling cultivating, plowing, discing, removing any existing vegetation or by depositing or spreading a quantity of soil on said land, or by any other act likely to cause or contribute to dust emission or wind erosion of said land. The section also states that persons are prohibited from causing or aggravating an existing dust or wind erosion condition without providing sufficient protection so as to prevent the soil on said land from being eroded by wind, creating dust, or blowing into a public road or roads or other public or private property.

Chapter 15.08, *Building Code*, of the Municipal Code, is the presiding building code within the City for the purposes of regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, use, height, area maintenance of all structures and certain equipment therein and providing penalties for violation of such codes. The City's Building Code has adopted volumes 1 and 2 of the 2019 CBSC and the 2018 edition of the International Building Code with necessary California amendments.

5.5.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

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

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 (refer to Section 8.0, *Effects Found Not To Be Significant*);

   ii) Strong seismic ground shaking (refer to Impact Statement GEO-1);

   iii) Seismic-related ground failure, including liquefaction (refer to Impact Statement GEO-2);

iv) Landslides (refer to Section 8.0, *Effects Found Not To Be Significant*);

b) Result in substantial soil erosion or the loss of topsoil (refer to Impact Statement GEO-3);

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (refer to Impact Statement GEO-4);

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property (refer to Impact Statement GEO-4);

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water (refer to Section 8.0, *Effects Found Not To Be Significant*); and

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (refer to Impact Statement GEO-5).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.5.4 IMPACTS AND MITIGATION MEASURES

STRONG SEISMIC GROUND SHAKING

GEO-1 FUTURE TRANSPORTATION IMPROVEMENTS FUNDED BY THE PROPOSED PROJECT COULD EXPOSE PEOPLE AND STRUCTURES TO POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING STRONG SEISMIC GROUND SHAKING.

Impact Analysis: Southern California is known to be earthquake prone, and the City would likely be subjected to some degree of seismic ground shaking during earthquake events. The proposed program would fund VMT-reducing transportation improvement, such as crosswalks, multi-purpose paths, traffic circles, and bicycle lanes, among others, within the City. The identified VMT-reducing projects would not include any habitable structures that could result in risk of upset during a seismic event. As such, the potential transportation improvements would not expose people or structures to substantial adverse effects involving strong seismic ground shaking. Future transportation improvements would be City-initiated projects or implemented as part of future development projects and would require environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Thus, project-specific analysis and

mitigation measures would be implemented, as needed. Future transportation improvements and development projects would also be required to comply with existing regulations to minimize potential impacts from seismic ground shaking (e.g., the Earthquake Hazards Reduction Act, Seismic Hazard Mapping Act, 2019 CBSC, and Municipal Code Chapter 15.08, *Building Code*). Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LIQUEFACTION

GEO-2 PROJECT IMPLEMENTATION COULD EXPOSE PEOPLE AND STRUCTURES TO SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING LIQUEFACTION.

Impact Analysis: As shown on General Plan MEA Figure 2-6, *Study Area Seismic Hazards Map*, there are multiple areas in the City that are susceptible to liquefaction hazard. Specifically, areas with liquefaction potential are located along the length of Little Rock Wash in the eastern portion of the City and in the vicinity of Amargosa Creek, extending from the area north of Quartz Hill to the northeast across the City to the Los Angeles-Kern County line outside of the City limits.

As shown on Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*, potential transportation improvements funded by the proposed program could occur in potential liquefaction zones. All future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review (e.g., Categorical Exemption, Negative Declaration/Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project-specific impacts and identify any required mitigation measures. Additionally, future improvements would be required to comply with the 2019 CBSC and Municipal Code requirements related to building safety to reduce potential liquefaction impacts. Thus, the proposed VMT Mitigation program itself would not expose people or structures to adverse liquefaction hazards, and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SOIL EROSION

GEO-3 PROJECT IMPLEMENTATION COULD RESULT IN SUBSTANTIAL SOIL EROSION OR LOSS OF TOPSOIL.

Impact Analysis: As shown on Exhibit 3-3, the majority of future transportation improvements funded by the proposed program would occur within or along existing rights-of-way in the City and thus, would not result in substantial soil erosion or loss of topsoil. However, transportation

improvements implemented as part of development projects could occur on vacant, undeveloped sites where soil erosion is more likely to occur during construction activities. Section 8.16.030 *Disturbing Surface of Land or Causing Wind Erosion Prohibited*, prohibits the disturbance of surface or subsurface land by excavating, grading, leveling cultivating, plowing, discing, removing any existing vegetation or by depositing or spreading a quantity of soil on said land, or by any other act likely to cause or contribute to dust emission or wind erosion of said land. Municipal Code Section 8.16.030 also prohibits the aggravation of an existing dust or wind erosion condition without providing sufficient protection. Further, in compliance with the NPDES program, development projects involving one or more acres of site disturbance would be required to prepare and implement a SWPPP and associated BMPs in compliance with the Construction General Permit during grading and construction. Typical BMPs include erosion prevention mats or geofabrics, silt fencing, sandbags, plastic sheeting, temporary drainage devices, and positive surface drainage to allow surface runoff to flow away from site improvements or areas susceptible to erosion. Surface drainage design provisions and site maintenance practices would reduce potential soil erosion following site development. Adherence to the BMPs in the SWPPP would reduce, prevent, or minimize soil erosion from grading and construction activities.

As such, future transportation improvements and development projects implementing such improvements would be required to comply with Section 8.16.030 *Disturbing Surface of Land or Causing Wind Erosion Prohibited*, of the Municipal Code, and the NPDES program requirements. Further, all future transportation improvements would be required to undergo separate environmental review under CEQA to evaluate site-specific impacts and identify any required mitigation measures. Therefore, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

UNSTABLE AND EXPANSIVE SOILS

GEO-4 FUTURE TRANSPORTATION IMPROVEMENTS COULD BE LOCATED ON UNSTABLE OR EXPANSIVE SOILS AND POTENTIALLY RESULT IN GEOLOGIC HAZARDS.

Impact Analysis: Future transportation improvements within the City could be located on unstable or expansive soils that could result in landslides, lateral spreading, subsidence, liquefaction, or collapse. Refer to Section 8.0 for a discussion concerning the project's potential impacts in regard to landslide impacts and to Impact Statement GEO-2 for analysis regarding the project's potential impacts with regards to liquefaction hazards.

Unstable Soils

Lateral Spreading. As shown on General Plan MEA Figure 2-6, *Study Area Seismic Hazards Map*, there are multiple areas in the City that are susceptible to liquefaction hazard and thus, could be more susceptible to liquefaction-induced lateral spreading. Specifically, areas with liquefaction and lateral spreading potential are located along the length of Little Rock Wash in the eastern portion of the City

and in the vicinity of Amargosa Creek, extending from the area north of Quartz Hill to the northeast across the City to the Los Angeles-Kern County line outside of the City limits.

Subsidence. As discussed above, fissures have been known to occur within the City and can lead to subsidence as surface water enters fissures and moves laterally through the soils to eventually erode the underlying rock material. Areas with known occurrences of fissures are illustrated on General Plan MEA Figure 2-3, *Soil Stability Issues*, and are generally located in the north-central portion and the west-central portion of the City.

Collapse. Similar to subsidence hazards, collapsible/compressible soils are also associated with potential fissure locations within the City; refer to General Plan MEA Figure 2-3, *Soil Stability Issues*.

Expansive Soils

As detailed above, most soils within the City have low shrink-swell potential (i.e., expansion), which do not represent a problem for typical construction activities. However, as shown on General Plan MEA Figure 2-3, *Soil Stability Issues*, there is an area north of Lancaster Boulevard and west of 10th Street West, an area near Lancaster Boulevard and 30th Street East, and a small area in the eastern end of the City where the soils are classified as moderately expansive.

Potential transportation improvements funded by the program could occur in various areas of the City; refer to Exhibit 3-3. Thus, it is speculative to determine and analyze project impacts related to site-specific soil conditions at this programmatic level of analysis. All future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA to evaluate site-specific impacts related to unstable soils and expansive soils and to identify any required mitigation measures. Additionally, future improvements would be required to comply with the 2019 CBSC and Municipal Code requirements related to building safety to reduce potential geologic hazards. Thus, the proposed VMT Mitigation program itself would not expose people or structures to adverse hazards in this regard, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

PALEONTOLOGICAL RESOURCES

GEO-5 PROJECT IMPLEMENTATION COULD DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE.

Impact Analysis: As stated above, no known fossil localities have been previously recorded within the City boundaries, and the southwestern corner of the City has low potential for paleontological sensitivity. However, surface deposits consisting of younger Quaternary alluvial soils near the City (outside of City limits) have recovered faunal remains from small vertebrates. Additionally, soils in the

City may overlay Pleistocene-age alluvial soils, which have a moderate to high potential for paleontological sensitivity. As such, multiple areas within and in the vicinity of the City have potential to encounter paleontological resources.

As shown on Exhibit 3-3, potential transportation improvements could occur in various areas of the City, including areas identified to have moderate to high potential in paleontological sensitivity. Potential impacts to paleontological resources are based on site-specific soil conditions and project details (e.g., depth of excavation required). Thus, it is speculative to determine potential impacts to paleontological resources at this programmatic level of analysis. Nevertheless, future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA to evaluate project- and site-specific impacts and to identify any required mitigation measures. Additionally, Mitigation Measure GEO-1 would require a Paleontological Resources Assessment be prepared at the discretion of the City and based on the type of project and whether ground disturbing activities are proposed. The Paleontological Resources Assessment would identify the paleontological sensitivity of the project site and any required mitigation to reduce impacts to paleontological resources. As such, upon implementation of Mitigation Measure GEO-1, future improvements developed in accordance with the proposed program would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, and impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

GEO-1 To ensure identification and preservation of paleontological resources within the City of Lancaster, each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall be screened by the City of Lancaster Development Services Department, Community Development Division to determine whether a Paleontological Resources Assessment is required. Screening shall consider the type of project and whether ground disturbances will occur. Ground disturbances include activities such as grading, excavation, trenching, boring, or demolition that extend below the current grade. If there will be no ground disturbance, then a Paleontological Resources Assessment shall not be required. If there will be ground disturbances, prior to issuance of any permits required to conduct ground disturbing activities, the City may require a Paleontological Resources Assessment be prepared by a qualified paleontologist, defined as a paleontologist who meets the Society of Society of Vertebrate Paleontology (SVP) standards for a Principal Investigator or Project Paleontologist.

The Paleontological Resources Assessment shall include and take into account project-specific and local geologic mapping, geotechnical data, and paleontological records search. The Paleontological Resources Assessment shall adhere to and incorporate the performance standards and practices from the current SVP Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. The qualified paleontologist shall submit the Paleontological Resources Assessment to the City of Lancaster Development Services Department, Community Development Division for review and approval before issuance of a grading permit.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

- **THE PROPOSED PROJECT, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD EXPOSE PEOPLE OR STRUCTURES TO POTENTIAL SUBSTANTIAL ADVERSE EFFECTS INVOLVING GEOLOGY AND SOILS AND COULD IMPACT UNKNOWN PALEONTOLOGICAL RESOURCES.**

Impact Analysis: Future cumulative projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential effects involving geology and soils and impacts to paleontological resources. Additionally, similar to future transportation improvements funded by the proposed program, cumulative projects would be required to comply with existing local, State, and Federal regulations regarding geologic hazards. For example, future developments would be required to comply with the 2019 CBSC, NPDES program requirements, and Municipal Code Chapter 15.08, *Building Code*, and Section 8.16.030 *Disturbing Surface of Land or Causing Wind Erosion Prohibited.*

As concluded above, geologic/seismic hazards and paleontological impacts associated with the proposed program would be less than significant upon implementation of regulatory requirements and Mitigation Measure GEO-1. Further, all future transportation improvements would be required to undergo separate project- and site-specific environmental review Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to geology and soils have been identified.

5.6 Hydrology and Water Quality

5.6 HYDROLOGY AND WATER QUALITY

This section identifies regional and local hydrology conditions and relevant Federal, State, and local policies and regulations. Potential project impacts related to hydrology and water quality are analyzed herein.

5.6.1 EXISTING SETTING

HYDROLOGY AND DRAINAGE

Groundwater

The Antelope Valley Groundwater Basin (Basin) is located in the southwestern portion of the Mojave Desert. The Basin straddles the Los Angeles County-Kern County line, encompassing approximately 1,220 square miles within Los Angeles County, 2,006 square miles in Kern County, and 143 square miles in San Bernardino County.[1] It is considered a closed topographic basin with no outlet to the ocean, which restricts the removal of runoff to percolation or evaporation. The Basin is primarily recharged through infiltration of precipitation and runoff from the surrounding mountains and hills in ephemeral stream channels. Other sources of recharge to the basin include artificial recharge and return flows from agricultural and urban irrigation. Depending on the thickness and characteristics of the unsaturated zone of the aquifer below a particular site, these sources may or may not contribute to recharge of the Basin.

In general, groundwater in the Basin flows northeasterly from several major mountain range canyons, then spreads out and flows across the alluvial fans, eventually reaching the dry lakebeds, including Rogers Lake, Rosamond Lake, and Buckhorn Lake, all located northeast of the City. Storm flows in the undeveloped portions of the City are generally channeled through wide, north-south swales until intercepted by flood control structures or natural creek beds. Natural tributaries within the City include Amargosa Creek and Little Rock Creek. The total storage capacity of the Basin has been reported to be approximately 68,000,000 to 70,000,000 acre-feet.[2] For the part of the Basin between 20 and 220 feet in depth, the storage capacity has been reported to be approximately 5,400,000 acre-feet.

Surface Water

Surface watersheds in California are divided into ten hydrologic regions, as defined by the California Department of Water Resources (DWR). The City is located within the South Lahontan Hydrologic Region and is subject to the objectives and limits of the *Water Quality Control Plan for the Lahontan Region*

[1] Los Angeles County Department of Public Works, *Antelope Valley Watershed*, https://dpw.lacounty.gov/wmd/watershed/av/, accessed November 11, 2021.

[2] California Department of Water Resources, *California's Groundwater, Bulletin 118, South Lahontan Hydrologic region, Antelope Valley Groundwater Basin*, last updated February 27, 2004, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/6_044_AntelopeValley.pdf, accessed November 9, 2021.

(Basin Plan) under the jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB). Hydrologic Regions are subdivided into Hydrologic Units (HUs), and further into Hydrologic Areas (HAs). The City is in the Antelope HU and specifically within the Lancaster HA. Notable named streams in the watershed include Amargosa Creek, Big Rock Creek, and Little Rock Creek which begin as well-defined channels in the San Gabriel Mountains and become broad, ephemeral washes as they flow northeast onto the valley floor towards Rosamond Dry Lake. Oak Creek and Cottonwood Creek begin in the Tehachapi Mountains and flow southeast towards the center of the watershed.

Drainage Facilities

The *City of Lancaster Master Plan of Drainage* includes a map showing existing local and regional flood control facilities in Lancaster, including channels, storm drains, and retention basins.[3] City streets are generally used to convey water runoff, which tends to flow in sheets over paved surfaces and collect in low-lying areas. In many areas, City streets are designed to accommodate 10-year and/or 25-year storm flows within the existing rights-of-way.

Flooding

Based on the General Plan, the City and surrounding area's population reside in low lying areas adjacent to significant mountain ranges with uncontrolled runoff, including the San Gabriel and Sierra Pelona Mountains to the south. As such, residents in these areas are subject to periodic flooding during and immediately after periods of heavy rain fall. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) for Los Angeles County, California (Map Numbers 06037C0150F, 06037C0400F, 06037C0175F, 06037C0405F, 06037C0415F, 06037C0410F, 06037C0420F, 06037C0450F, 06037C0442F, 06037C0475F, 06037C0465F, and 06037C0462F, dated September 26, 2008) show that the majority of the City is located within areas of 0.2-percent annual chance of flood hazard.[4] Small areas in the northern part, eastern terminal, and western terminal of the City are identified as areas with one percent annual chance of flood hazard.[5] Surface water flows originating in the developed portions of the City, on the floor of the alluvial fan, are generally contained within the existing street.

STORMWATER QUALITY

Point Source Pollutants

Historically, point source pollutants have consisted of industrial operations with discrete discharges to receiving waters. Over the past several decades, many industrial operations have been identified as potential sources of pollutant discharges. For this reason, many types of industrial operations require

[3] Stantec Consulting Inc., *City of Lancaster Master Plan of Drainage, Appendix C, Existing Hydrology Map*, dated March 20, 2019, https://www.cityoflancasterca.org/home/showpublisheddocument/42836/637485843453730000, accessed November 3, 2021.

[4] County of Los Angeles, *Comprehensive Floodplain Management Plan, Appendix F, FEMA Flood Zone Maps*, May 28, 2015.

[5] Ibid.

coverage under the State of California's General Industrial Permit. This permit regulates the operation of industrial facilities and monitors and reports mechanisms to ensure compliance with water quality objectives. State regulations require industrial operations to comply with California's General Industrial Permit, which significantly lessens impacts on the quality of receiving waters. However, industrial operations that are not covered under the General Industrial Permit's jurisdiction may still have the potential to affect the water quality of receiving waters. These industrial operations would be considered nonpoint source pollutants.

Nonpoint Source Pollutants

A net effect of urbanization can be to increase pollutant export over naturally occurring conditions. The impact of the higher export affects the adjacent streams and the downstream receiving waters. However, an important consideration in evaluating stormwater quality is to assess whether the beneficial use to the receiving waters is impaired. Nonpoint source pollutants are characterized by the following major categories to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements; however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Standard water quality categories of typical urbanization impacts are:

- *Sediment*. Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants, including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of run-off due to urbanization.

- *Nutrients*. Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen, which can cause algal blooms and excessive vegetative growth. Of the two, phosphorus is usually the limiting nutrient that controls the growth of algae in lakes. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes significant amounts of oxygen, which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas more than needed by the plant, nitrates can leach below the root zone, eventually reaching groundwater. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. Generally, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are: 1) surface algal scums; 2) water discolorations; 3) odors; 4) toxic releases; and 5) overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

- *Trace Metals*. Trace metals are primarily a concern because of their toxic effects on aquatic life, and their potential to contaminate drinking water supplies. The most common trace metals found in urban run-off are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment; this effectively reduces the level, which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with sediment settle out rapidly and accumulate in the soils. Urban runoff events typically occur over a shorter duration, reducing the amount of exposure, which could be toxic to the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

- *Bacteria*. Bacteria levels in undiluted urban runoff exceed public health standards for water contact recreation almost without exception. Studies have found that total coliform counts exceeded the U.S. Environmental Protection Agency's (EPA) water quality criteria at almost every site and almost every time it rained. The coliform bacteria that are detected may not be a health risk by themselves but are often associated with human pathogens.

- *Oil and Grease*. Oil and grease are characterized as high-molecular weight organic compounds. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality. Introduction of these pollutants to water bodies may occur due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids.

- *Other Toxic Chemicals*. Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in stormwater. Priority pollutant scans have been conducted in previous studies of urban run-off, which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban run-off scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (possibly except for illegally disposed or applied household hazardous wastes). Measures of priority pollutants in stormwater include: 1) phthalate (plasticizer compound); 2) phenols and creosols (wood preservatives); 3) pesticides and herbicides; 4) oils and greases; and 5) metals.

Physical Characteristics of Surface Water Quality

Standard parameters, which can assess stormwater quality, provide a method of measuring impairment. A background of these typical characteristics assists in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface run-off. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, high automobile traffic volumes cause various potential pollutants (such as lead and hydrocarbons) to be more prevalent. The availability of a material, such as a fertilizer, is a function of the quantity and the

way in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or groundwater.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. There are many types and classifications of water quality parameters for stormwater. Typically, the concentration of an urban pollutant, rather than the annual load of that pollutant, is required to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of surface runoff are listed below.

- *Dissolved Oxygen*. Dissolved oxygen (DO) in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The DO concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. DO is a transient property that can fluctuate rapidly in time and space and represents the status of the water system at a point and time of sampling. The decomposition of organic debris in water is a slow process, as are the resulting changes in oxygen status. The oxygen demand is an indication of the pollutant load and includes measurements of biochemical oxygen demand or chemical oxygen demand.

- *Biochemical Oxygen Demand*. The biochemical oxygen demand (BOD) is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20°C, after which the residual dissolved oxygen is measured. The BOD value commonly referenced is the standard five-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

- *Chemical Oxygen Demand*. The chemical oxygen demand (COD) is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

- *Total Dissolved Solids*. Total dissolved solids (TDS) concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on TDS.

- *pH*. The pH of water is the negative log, base 10, of the hydrogen ion (H^+) activity. A pH of 7 is neutral; a pH greater than 7 indicates alkaline water; a pH less than 7 represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by

plants. The pH of water directly affects fish and other aquatic life; generally, toxic limits are pH values less than 4.8 and greater than 9.2.

- *Alkalinity*. Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 milligrams per liter (mg/l). Ranges of alkalinity of 100-200 mg/l seem to support well-diversified aquatic life.

- *Specific Conductance*. The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long-term monitoring of project waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities more than 2,000 microohms per centimeter (µohms/cm) indicate a TDS level too high for most freshwater fish.

- *Turbidity*. The clarity of water is an important indicator of water quality that relates to the alkalinity of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended clays and other organic particles. It can be used as an indicator of certain water quality constituents, such as predicting sediment concentrations.

- *Nitrogen*. Sources of nitrogen in stormwater are from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of nitrate-nitrogen (N/N) in water can stimulate growth of algae and other aquatic plants, but if phosphorus is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algal blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l. There are several ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia), ammonia, nitrite plus nitrate, nitrite, and nitrogen in plants. The principal water quality criterion for nitrogen focuses on nitrate and ammonia.

- *Phosphorus*. Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban stormwater discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and considered the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. Important methods of measurement include detecting orthophosphate and total phosphorus.

Existing Regional Water Quality Conditions

The City is under the jurisdiction of the Lahontan RWQCB. The Lahontan RWQCB is responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters in their region. The Lahontan RWQCB is also responsible for protecting surface and groundwaters from both point and non-point sources of pollution. Water quality standards and control measures for surface and ground waters of the Lahontan Region are contained in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The Basin Plan designates beneficial uses for surface water and groundwater and establishes water quality objectives, waste discharge prohibitions, and other implementation measures to protect those beneficial uses. Twenty three beneficial uses and their definitions were developed and recommended for use in the Basin Plans, the following of which are applicable to the discussion below:

- *AGR – Agricultural Supply*. Beneficial uses of waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation for range grazing;

- *BIOL – Preservation of Biological Habitats of Special Significance*. Beneficial uses of waters that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, and Areas of Special Biological Significance, where the preservation and enhancement of natural resources requires special protection;

- *COLD – Cold Freshwater Habitat*. Beneficial uses of waters that support cold water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates;

- *COMM – Commercial and Sportfishing*. Beneficial uses of waters used for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption;

- *FLD – Flood Peak Attenuation/Flood Water Storage*. Beneficial uses of riparian wetlands in floodplain areas and other wetlands that receive natural surface drainage and buffer its passage to receiving waters;

- *FRSH – Freshwater Replenishment*. Beneficial uses of waters used for natural or artificial maintenance of surface water quantity or quality [e.g., salinity];

- *GWR – Ground Water Recharge*. Beneficial uses of waters used for natural or artificial recharge of groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers;

- *IND – Industrial Service Supply*. Beneficial uses of waters used for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, geothermal energy production, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization;

- *MUN – Municipal and Domestic Supply*. Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply;

- *RARE – Rare, Threatened, or Endangered Species*. Beneficial uses of waters that support habitat necessary for the survival and successful maintenance of plant or animal species established under State and/or Federal law as rare, threatened or endangered;

- *REC-1 – Water Contact Recreation*. Beneficial uses of waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs;

- *REC-2 – Noncontact Water Recreation*. Beneficial uses of waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beach-combing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities;

- *SAL – Inland Saline Water Habitat*. Beneficial uses of waters that support inland saline water ecosystems including, but not limited to, preservation and enhancement of aquatic saline habitats, vegetation, fish, and wildlife, including invertebrates;

- *WARM – Warm Freshwater Habitat*. Beneficial uses of waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates;

- *WILD – Wildlife Habitat*. Beneficial uses of waters that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl; and

- *WQE – Water Quality Enhancement*. Beneficial uses of waters that support natural enhancement or improvement of water quality in or downstream of a water body including, but not limited to, erosion control, filtration and purification of naturally occurring water pollutants, streambank stabilization, maintenance of channel integrity, and siltation control.

The Basin Plan identifies the following beneficial uses for the Basin:[6]

- MUN, AGR, IND, FRSH

[6] State of California Regional Water Quality Control Board Lahontan Region, *Water Quality Control Plan for the Lahontan Region, North and South Basins*, Table 2-2, Beneficial Uses for Ground Waters of the Lahontan Region, effective March 31, 1995, including amendments effective August 1995 through October 29, 2019.

Further, the Basin Plan identifies the following beneficial uses for the subunit drainage features (watersheds/sub-watershed) within the Lancaster Hydrologic Area:[7]

- Amargosa Creek (above discharge from Lancaster Water Reclamation Plant [Lancaster WRP])
  - MUN, AGR, GWR, FRSH, REC-1, REC-2, COMM, WARM, COLD, WILD
- Amargosa Creek (below discharge from Lancaster WRP)
  - AGR, GWR, FRSH, REC-2, WARM, WILD
- Piute Ponds
  - AGR, GWR, FRSH, REC-2, WARM, WILD, BIOL, RARE
- Piute Ponds (wetlands)
  - AGR, GWR, FRSH, REC-2, WARM, WILD, BIOL, RARE, WQE, FLD
- Rosamond Dry Lake
  - GWR, REC-2, WARM, SAL, WILD
- Minor Surface Waters
  - MUN, AGR, GWR, REC-1, REC-2, COMM, WARM, COLD, WILD
- Minor Wetlands
  - MUN, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, WQE, FLD

The State and RWQCBs assess water quality data for California's waters every two years to determine if they contain pollutants at levels that exceed protective water quality criteria and standards. This biennial assessment is required under Clean Water Act (CWA) Section 303(d). Once a water body has been listed as "impaired", a Total Maximum Daily Load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. According to the SWRCB, no waterbody within the Lancaster hydrologic area is identified as 303(d) listed.[8] The closest listed waterbody is Elizabeth Lake (Category 5)[9] approximately 3.6 miles to the west of the City. As such, no TMDLs have been established.

[7] State of California Regional Water Quality Control Board Lahontan Region, *Water Quality Control Plan for the Lahontan Region, North and South Basins*, Table 2-1, Beneficial Uses of Surface Waters of the Lahontan Region, effective March 31, 1995, including amendments effective August 1995 through October 29, 2019.

[8] State Water Resources Control Board, *Impaired Water Bodies, 2010 Integrated Report (Clean Water Act Section 303(d) List/ 305(b) Report) – Statewide*, https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml?wbid=CAR635200531998080316 2636, October 11, 2011.

[9] Category 5 criteria: A water segment where standards are not met and a Total Maximum Daily Load (TMDL) is required, but not yet completed, for at least one of the pollutants being listed for this segment.

5.6.2 REGULATORY SETTING

FEDERAL LEVEL

Clean Water Act

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act (Clean Water Act [CWA]). Originally enacted in 1948, it was amended in 1972 and has remained substantially the same since. The CWA consists of two major parts: provisions that authorize Federal financial assistance for municipal sewage treatment plant construction and regulatory requirements that apply to industrial and municipal dischargers. The CWA authorizes the establishment of effluent standards on an industry basis. The CWA also requires States to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses."

The CWA forms the basic national framework for the management of water quality and the control of pollution discharges; it provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, antidegradation policy, nonpoint source discharge programs, and wetlands protection. The U.S. Environmental Protection Agency (EPA) has delegated the responsibility for administration of portions of the CWA to State and regional agencies.

Section 303(d) List of Impaired Water Bodies

CWA Section 303(d) and California's Porter-Cologne Water Quality Control Act (described below) require that the State establish the beneficial uses of its State waters and to adopt water quality standards to protect those beneficial uses. Section 303(d) establishes a TMDL, which is the maximum quantity of a contaminant that a water body can maintain without experiencing adverse effects, to guide the application of State water quality standards. Section 303(d) also requires the State to identify "impaired" streams (water bodies affected by the presence of pollutants or contaminants) and to establish the TMDL for each stream.

National Pollution Discharge Elimination System

To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. The NPDES is the permitting program for discharge of pollutants into surface waters of the United States under CWA Section 402. Thus, industrial and municipal dischargers (point source discharges) must obtain NPDES permits from the appropriate RWQCB. The existing NPDES (Phase I) stormwater program requires municipalities serving more than 1,000,000 persons to obtain a NPDES stormwater permit for any construction project larger than five acres. Proposed NPDES stormwater regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 persons or more and construction sites that disturb more than one acre. For other dischargers, such as those affecting groundwater or from nonpoint sources, a Report of Waste Discharge must be filed with the regional

RWQCB. For specified situations, some permits may be waived, and some discharge activities may be handled through being included in an existing General Permit.

National Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. These Acts are intended to reduce the need for large publicly funded flood control structures and disaster relief by restricting development on floodplains.

The National Flood Insurance Program (NFIP) provides a means for property owners to financially protect themselves from flood damage. The NFIP offers flood insurance to homeowners, renters, and business owners if their community participates in the program. Participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements to reduce the risk of flooding. The City of Lancaster is a participating community and must adhere to the NFIP.

Through its Flood Hazard Mapping Program, FEMA identifies flood hazards, assesses flood risks and partners with States and communities to provide accurate flood hazard and risk data. Flood hazard mapping is an important part of the NFIP, as it is the basis of the NFIP regulations and flood insurance requirements. FEMA maintains and updates data through FIRMs and risk assessments. A FIRM is an official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

A Special Flood Hazard Area (SFHA) is an area within a floodplain having a one percent or greater chance of flood occurrence within any given year (commonly referred to as the 100-year flood zone). SFHAs are delineated on flood hazard boundary maps issued by FEMA. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 make flood insurance mandatory for most properties in SFHAs.

STATE LEVEL

Porter-Cologne Water Quality Control Act

The CWA places the primary responsibility for the control of surface water pollution and for planning the development and use of water resources with the States, although it establishes certain guidelines for the States to follow in developing their programs and allows the EPA to withdraw control from States with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act (Water Code Sections 13000, et seq.). The Porter-Cologne Water Quality Control Act grants the State Water Resources Control Board (SWRCB) and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Water Quality Control Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Water Quality Control Act and established by the SWRCB in its State water policy. The Porter-Cologne Water Quality Control Act also provides that a RWQCB may include, within its regional plan, water discharge prohibitions applicable to particular conditions, areas, or types of waste.

State Water Resources Control Board

The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCBs conduct planning, permitting, and enforcement activities. The NPDES permit is divided into two parts: construction and post-construction. Construction permitting is administered by the SWRCB, while post-construction permitting is administered by the regional RWQCB. In California, NPDES permits are also referred to as waste discharge requirements (WDRs) that regulate discharges to waters of the United States.

Construction General Permit Order 2009-0009-DWQ

On November 16, 1990, the EPA published final regulations that established stormwater permit application requirements for specified categories of industries. The regulations provide that discharges of stormwater to waters of the United States from construction projects are effectively prohibited unless the discharge complies with an NPDES Permit. On August 19, 1999, the SWRCB reissued the General Construction Stormwater Permit (Water Quality Order 99-08-DWQ). On December 8, 1999, the State Water Board amended Order 99-08-DWQ to apply to sites as small as one acre.

Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore a facility's original line, grade, or capacity.

To obtain coverage under the Construction General Permit, Permit Registration Documents (PRDs), including a Notice of Intent (NOI), Risk Assessment, Site Map, and Storm Water Pollution Prevention Plan (SWPPP), among others, must be filed with the SWRCB prior to the commencement of construction activity. The NOI would notify the SWRCB of the applicant's intent to comply with the Construction General Permit. The SWPPP, which must be prepared by a certified Qualified SWPPP Developer (QSD), would include a list of Best Management Practices (BMPs) the discharger would use to protect stormwater run-off and the placement of those BMPs. Additionally, the project's SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

Groundwater Management Act

In 1992, the State Legislature provided for more formal groundwater management with the passage of Assembly Bill (AB) 3030, the Groundwater Management Act (Water Code Section 10750, et seq.).

Groundwater management, as defined in DWR's Bulletin 118 Update 2003, is the planned and coordinated monitoring, operation, and administration of a groundwater basin, or portion of a basin, with the goal of long-term groundwater resource sustainability. Groundwater management needs are generally identified and addressed at the local level in the form of Groundwater Management Plans (GMP). The Act provides local water agencies with procedures to develop a GMP to enable those agencies to manage their groundwater resources efficiently and safely while protecting the quality of supplies. Under the Act, development of a GMP by a local water agency is voluntary.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) established a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. With passage of the SGMA, the Department of Water Resources launched the Sustainable Groundwater Management (SGM) Program to implement the law and provide ongoing support to local agencies around the State. The SGMA:

- Establishes a definition of "sustainable groundwater management";
- Requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California;
- Establishes a timetable for adoption of Groundwater Sustainability Plans;
- Empowers local agencies to manage basins sustainably;
- Establishes basic requirements for Groundwater Sustainability Plans; and
- Provides for a limited State role.

Specifically, SGMA requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a GSP. According to the California Department of Water Resources, the Antelope Valley Groundwater Basin is categorized as a "very low" priority basin.[10] Therefore, there is no groundwater sustainability plan established.

REGIONAL LEVEL

Water Quality Control Plan for the Lahontan Region, North And South Basins

The City of Lancaster is within the jurisdictional boundaries of the Lahontan RWQCB. As one of nine regional boards in the State, the Lahontan RWQCB develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources in its region. Its duties include developing "basin plans" for its hydrologic area, issuing waste discharge requirements, taking enforcement action against violators, and monitoring water quality. In March 1995, a *Water Quality Control Plan for the Lahontan Region, North and South Basins* (Basin Plan), adopted by the Lahontan RWQCB, took effect. The Basin Plan incorporates language from and replaces three earlier plans: the

[10] California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp2018-dashboard/p1/, accessed November 9, 2021.

Lahontan RWQCB's *1975 North and South Lahontan Basin Plans*, as amended through 1991, and the SWRCB's *1980 Lake Tahoe Basin Water Quality Plan*, as amended through 1989. The earlier plans were combined into a single plan which was adopted by the Lahontan RWQCB in November 1994 and took effect upon approval by the California Office of Administrative Law in March 1995. The current Basin Plan incorporates amendments effective August 1995 through October 29, 2019.

Antelope Valley Integrated Regional Urban Water Management Plan

The *Antelope Valley Integrated Regional Water Management Plan* (Antelope Valley IRWMP) is a multi-county collaboration effort developed to address regional concerns about water supply reliability, water quality, flood protection, environmental resources and land use management in the Antelope Valley. It should be noted that the current Antelope Valley IRWMP (2019) includes new information as required by the DWR's *2016 Integrated Regional Water Management Proposition 1 Guidelines* as well as updates to information from the previous Antelope Valley IRWMP prepared in 2013.

LOCAL LEVEL

City of Lancaster Master Plan of Drainage

In 1992, the City adopted the *City of Lancaster Master Plan of Drainage* (Master Plan of Drainage). The current version of the Master Plan of Drainage (dated May 2019 and revised December 3, 2020) contains updated facilities and drainage fee schedules. The City funds all Master Plan of Drainage facilities through drainage impact fees and drainage maintenance fees. As undeveloped lands are covered or paved over, their natural absorption capabilities are reduced and the amount of runoff is increased. Even small amounts of rain in the Lancaster area can cause flooding problems because of the general lack of adequate storm drain facilities.

For large projects (equal to or greater than 100 lots), the Master Plan of Drainage calls for the construction of local retention or detention basins until the regional system can be built. New local flood control facilities are presently built on an individual, project by project basis. These projects are designed for the Capital Flood Protection. The County of Los Angeles defines the 'Capital Flood' as the runoff produced by a 50-year frequency design storm falling on a saturated watershed (soil moisture at field capacity). A 50-year frequency design storm has a one in 50 probability of being equaled or exceeded in any year. Capital Flood Protection also requires adding the effects of fires and erosion under certain conditions. New developments that fall under the Capital Flood Protection criteria are required to design their plan based on a 50-year storm frequency. As the regional system is built, these basins may be eliminated or converted to detention basins for peak flows only. The lowest finish floor elevation of all habitable structures shall be a minimum of one foot above maximum water level resulting from a 'Capital Flood.'

For smaller projects (less than 100 residential units per lots, regardless of size), streets are considered the primary stormwater conveyance facility. Local streets currently direct much of the storm water flows to the few existing improved storm drain structures. Existing City standards are to maintain a 50-year storm within the existing rights-of-way. The Master Plan of Drainage calls for containment of 25-year and/or 10-year storm flows within the curbs of the streets. In portions of the City with no

Master Plan of Drainage facilities, streets act as the primary local flood control program and new houses are usually built two to three feet above street grade.

City of Lancaster Storm Water Management Program

The CWA mandates that cities in major metropolitan areas, such as Los Angeles County, obtain permits to "effectively prohibit non-stormwater discharges into the storm sewers" and "require controls to reduce the discharge of pollutants to the maximum extent practicable...." The EPA has delegated this authority to the State of California, which has authorized the SWRCB and its local regulatory agencies, the RWQCBs, to control nonpoint source discharges to California's waterways.

The Municipal Storm Water Permitting Program regulates stormwater discharges from municipal separate storm sewer (drain) systems (MS4s). Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These regional MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in CWA Section 402(p). The management programs specify what BMPs will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations.

The City of Lancaster has been designated a regulated Small Municipal Separate Storm System by the EPA pursuant to 40 CFR 122.322(a)(1). To comply with the Phase II regulations of the NPDES, the City filed an NOI to comply with the SWRCB Small MS4 General Permit (MS4 Permit) in lieu of obtaining an individual permit. In compliance with Federal regulations, the City submitted an NOI, a Storm Water Management Program (SWMP), and applicable fee on March 7, 2003. On April 20, 2003, NPDES General Permit No. CAS000004 was adopted. The objective of the City's SWMP is to establish ordinances, policies, procedures, and practices to manage and control the quality of stormwater runoff in Lancaster.

City of Lancaster General Plan 2030

The General Plan includes the Plan for the Natural Environment, Plan for Public Health and Safety, Plan for Municipal Services and Facilities, all of which identifies objectives and policies to address the City's hydrology and water quality. The following policies are relevant to the proposed project:

Plan for the Natural Environment

Objective 3.1:	Protect, maintain, and replenish groundwater supplies to meet present and future urban and rural needs.
Policy 3.1.1:	Ensure that development does not adversely affect the groundwater basin.
Policy 3.1.2:	Promote efforts to exert greater City control over the existing water supply and to explore potential new sources.

Policy 3.1.3: Encourage the use of recycled tertiary treated wastewater when possible.

Objective 3.2: Reduce the per capita rate of water consumption in the City of Lancaster through increased conservation, technology, retrofits and system efficiency to levels consistent with other desert communities.

Policy 3.2.1: Promote the use of water conservation measures in the landscape plans of new developments.

Policy 3.2.2: Consider the potential impact of new development projects on the existing water supply.

Policy 3.2.3: Encourage incorporation of water-saving design measures into existing developments.

Policy 3.2.4: Implement the public information/education component of the City's Water Conservation Program in order to develop and maintain public sensitivity to water conservation issues and to encourage voluntary compliance with programs designed to reduce water consumption.

Policy 3.2.5: Promote the use of water conservation measures in the design of new developments.

Policy 3.2.6: Continue to provide water conservation leadership by example through implementing the Water Management Component of the City's Water Conservation Program at City facilities.

Objective 3.5.1: Minimize erosion problems resulting from development activities.

Policy 3.5.1 Minimize erosion problems resulting from development activities.

Plan for Public Health and Safety

Objective 4.2: Minimize the potential for loss of life, physical injury, property damage, and social disruption resulting from a FEMA 100-year flood.

Policy 4.2.1 Manage flood hazards to ensure an acceptable level of risk and to facilitate rapid physical and economic recovery following a flood through the identification and recognition of potentially hazardous conditions and implementation of effective standards for location and construction of development.

Plan for Municipal Services and Facilities

Objective 15.1: Achieve and maintain the following levels of service: Flood Control – Provision of protection of structures for human occupancy from the FEMA 100-year flood.

Policy 15.1.1 Promote continued coordination between the City of Lancaster and local service providers.

Policy 15.1.3 Ensure that adequate flood control facilities are provided, which maintain the integrity of significant riparian and other environmental habitats in accordance with Biological Resources policies.

Policy 15.1.4 Ensure that mitigation is provided for all development in recognized flood prone areas. Any mitigation of flood hazard in one area shall not exacerbate flooding problems in other areas.

Lancaster Municipal Code

Municipal Code Section 8.50.200, *Stormwater Management and Rainwater Retention*, establishes stormwater management practices or technical requirements for existing and/or new landscape that minimize runoff and increase rainwater retention and infiltration.

Section 15.64.060, *Drainage/Flood Control Improvements Fee*, of the Municipal Code, requires that all new development in the City pay a drainage/flood control improvements fee to mitigate the stormwater runoff impacts caused by new development.

Municipal Code Chapter 16.24, *Improvements, Dedications, and Reservations*, requires all improvements that are required by the conditions of a tentative map, by this chapter, or by any other City statute, ordinance or policy, to conform with the requirements within Chapter 16.24, including those outlines in Article II, *Drainage Facilities*, of this chapter. Specifically, Section 16.24.140, *Hydrology Study*, requires a hydrology study to be submitted and approved prior to the filing of the final map. The hydrology study would verify, among other things, that the proposed streets and existing downstream streets are designed to carry a 50-year storm, top of curb to top of curb, and 100-year storm within the right-of-way. Additionally, the anticipated flow through the subdivisions and/or potential drainage problems would be mitigated through the installation of drainage structures such as culverts, storm drains, or other improvements in accordance with Municipal Code Section 16.24.150, *Mitigation of Storm and Nuisance Water Runoff*.

5.6.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (refer to Impact Statements HWQ-1);

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin (refer to Section 8.0, *Effects Found Not To Be Significant*);

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i) Result in substantial erosion or siltation on- or off-site (refer to Impact Statement HWQ-2);

   ii) Substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site (refer to Impact Statement HWQ-2);

   iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (refer to Impact Statement HWQ-2); or

   iv) Impede or redirect flood flows (refer to Impact Statement HWQ-2);

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation (refer to Section 8.0, *Effects Found Not To Be Significant*); and/or

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.6.4 IMPACTS AND MITIGATION MEASURES

WATER QUALITY

HWQ-1 FUTURE IMPROVEMENTS ASSOCIATED WITH THE PROPOSED PROJECT COULD VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS, OR OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY.

Impact Analysis: The proposed VMT Mitigation Program would fund future transportation improvement projects that contribute towards reducing Citywide VMT. Future transportation improvements could contribute to water quality degradation in the City. Although minimal, transportation improvement projects, such as widened shoulders, sidewalks, bicycle lanes, and multipurpose paths, would likely increase impervious areas in the City, thus increasing urban runoff. There is also the possibility for water quality degradation during construction. Substances such as oils, fuels, paints, and solvents may be transported to nearby drainages, watersheds, and groundwater in stormwater runoff, wash water, and dust control water. The significance of these water quality impacts

would vary depending upon the level of construction activity, weather conditions, soil conditions, increased sedimentation of drainage systems within the area, compliance with NPDES permit requirements, and proper installation of BMPs.

Short-Term Construction Impacts

Future VMT-reducing transportation infrastructure improvements are unlikely to disturb more than one acre of land. In this case, the improvements would be required to comply with the City's SWMP, which includes minimum control measures that minimize stormwater runoff during construction and operation. In the event future improvements occur as part of larger development projects and disturb more than one acre of land, a General Construction Permit under the NPDES program would be required. Such transportation improvement projects would be subject to the stormwater discharge requirements of a General Construction Permit (Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002). Compliance with the General Construction Permit would require submittal of an NOI, SWPPP, Risk Assessment, and other documents prior to the commencement of soil disturbing activities. The SWPPP would identify point and nonpoint sources of pollutant discharge associated with the project that could adversely affect water quality in the City. The SWPPP would also list proposed BMPs to be implemented by the project in order to control sediment and other pollutants in stormwater and non-storm water runoff. Further, the SWPPP is required to include a visual monitoring program, a chemical monitoring program for "nonvisible" pollutants to be implemented if there is a failure of BMPs, and a monitoring plan if the site discharges directly to a water body listed on the State's 303(d) list of impaired waters. Examples of construction BMPs include soil and wind erosion controls, sediment controls, tracking controls, non-stormwater management controls; and waste management controls. Selection and implementation of these BMPs would occur on a case-by-case basis, and would be based on the pollutants of concern for the specific project site and the BMP's ability to effectively treat those pollutants, in consideration of site conditions and constraints dependent on project size and stormwater treatment needs. Additionally, the future development project would similarly be required to comply with the City's SWMP and associated minimum control measures that minimize stormwater runoff during construction and operation. Compliance with existing regulations would minimize construction-related water quality impacts associated with future transportation infrastructure improvements funded by the proposed program.

Long-Term Operational Impacts

As discussed above, future transportation improvements associated with the proposed project would likely increase impervious areas and could result in increased runoff. However, it is noted that many of the potential VMT-reducing improvements, such as raised crosswalks, pedestrian refuge islands, bus bulb-outs, and pedestrian traffic signals, would add minimal new impervious surfaces and would not substantially increase runoff in a manner that would adversely impact water quality. Regardless, to reduce long-term operational impacts in accordance with the requirements of the City and the regional MS4 permit, future transportation improvement projects would be required to comply with the NPDES permit and any BMP conditions and requirements established by the City. As stated, future transportation improvements would be City-initiated projects or implemented as part of future development projects and would require environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Thus,

project- and site-specific operational impacts would be analyzed and, if applicable, future developers would be required to prepare a hydrology study pursuant to Municipal Code Section 16.24.140, *Hydrology Study*. Further, in accordance with Municipal Code Section 8.50.200, *Stormwater Management And Rainwater Retention*, stormwater management practices or technical requirements for existing and/or new landscaping would be required for new developments to minimize runoff and increase rainwater retention and infiltration. Additionally, Section 15.64.060, *Drainage/Flood Control Improvements Fee*, of the Municipal Code, requires all new development in the City to pay a drainage/flood control improvement fee to mitigate stormwater runoff impacts caused by new development.

Additionally, applicable future transportation improvement projects would be required to prepare a Water Quality Management Plan (WQMP) in compliance with the NPDES permit requirements. Project-specific WQMPs are intended to reduce pollutants and post-development runoff and can include low impact development (LID) features, site design BMPs, and structural/nonstructural treatment BMPs to address post-construction stormwater runoff management. LID features may include techniques to infiltrate, filter, store, evaporate, or retain runoff close to the source of runoff, and are consistent with the prescribed hierarchy of treatment provided in the regional MS4 permit. Selection of LID and additional treatment control BMPs would be based on the pollutants of concern for the specific project site and the BMP's ability to effectively treat those pollutants, in consideration of site conditions and constraints. Additionally, future applicable transportation improvement projects would be required to comply with the City's SWMP, which includes additional minimum control measures that reduce stormwater runoff during construction and operation.

Conclusion

Overall, future transportation improvement projects associated with the proposed program would be required to comply with a number of local, State, and Federal regulations that ensure pollutant runoff generated by future projects does not exceed water quality standards and the City continues to comply with MS4 permit requirements related to water quality. Future improvements would be required to undergo separate environmental review to evaluate project- and site-specific impacts with regards to water quality. Applicable projects would also be required to prepare and implement SWPPPs and WQMPs to minimize off-site discharge of potential pollutant runoff during the construction and post-construction phases of the project. As a result, the project would not result in violation of water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

DRAINAGE PATTERNS

HWQ-2 FUTURE IMPROVEMENTS ASSOCIATED WITH THE PROPOSED PROJECT COULD SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERNS OF THE SITE OR AREA, OR SUBSTANTIALLY INCREASE THE RATE OR AMOUNT OF SURFACE RUNOFF, IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL EROSION, SILTATION, OR FLOODING ON- OR OFF-SITE.

Impact Analysis: Future transportation improvement projects associated with the proposed program could alter existing drainage patterns and increase runoff volumes in the area. For example, implementing widened sidewalks, multipurpose paths, bicycle lanes, and widened shoulders along existing rights-of-way or along future development project frontages would increase impervious surfaces if constructed on undeveloped or pervious areas, and thus, increase runoff volumes. However, other transportation improvements, such as raised crosswalks, bus bulb-outs, pedestrian refuge islands, roundabouts, and new pedestrian crosswalk traffic signals, would not substantively increase impervious area and would have minimal impacts with regards to altering existing drainage patterns or runoff volumes.

Regardless, all future transportation improvement projects would be required to undergo separate environmental review to evaluate project- and site-specific impacts in this regard. In addition, all improvements would be required to comply with applicable Federal, State, and local stormwater regulations and requirements as detailed above. Depending on the level of development, hydrology and drainage studies may also be required per Municipal Code Section 16.24.140, *Hydrology Study*, which would require an analysis of pre- and post-development hydrology conditions. Any changes in drainage flow paths, impervious areas, and runoff volumes associated with the transportation improvement projects would be identified in these studies and mitigation would be recommended to ensure the improvement (or larger development project) do not substantially alter a site's existing drainage pattern in a manner that could result in substantial erosion, siltation, or flooding. These studies may identify site-specific LID features, BMPs, and other on-site retention techniques to be implemented to reduce peak flow rates and/or runoff volumes.

Erosion/Siltation

In addition to complying with existing City regulations, applicable future transportation improvements would be required to prepare a SWPPP under the NPDES program. Implementation of a project-specific SWPPP and associated BMPs would minimize construction-related water quality impacts (including erosion and siltation) to less than significant levels. Additionally, future improvements may also be required to implement a project-specific WQMP and associated BMPs to reduce operational impacts in this regard.

Flooding

As detailed above, the City and surrounding area's population resides in low lying areas adjacent to significant mountain ranges with uncontrolled runoff (i.e., the San Gabriel and Sierra Pelona

Mountains to the south). As such, residents in these areas are subject to periodic flooding during and immediately after periods of heavy rain fall. In addition, small areas in the northern part, eastern terminal, and western terminal of the City are identified as areas with one percent annual chance of flood hazard. Future transportation improvement projects could be located in areas within the City that are prone to flooding. However, all transportation improvement projects would be required to comply with applicable Federal, State, and local stormwater regulations and requirements as detailed above. These regulations and requirements may include preparation of hydrology and/or drainage studies per Municipal Code Section 16.24.140, *Hydrology Study*, implementation of stormwater management practices for proposed landscaping per Municipal Code Section 8.50.200, *Stormwater Management And Rainwater Retention*, payment of drainage/flood control improvement fees per Municipal Code Section 15.64.060, *Drainage/Flood Control Improvements Fee*, and preparation of a SWPPP and/or WQMP and associated BMPs per NPDES permit requirements. Further, all future transportation improvement projects would be required to undergo project-level environmental review under CEQA.

Additionally, while existing City standards are to maintain a 50-year storm within existing rights-of-way, the Master Plan of Drainage calls for the containment of 25-year and/or 10-year storm flows within the curbs of the streets. Thus, all applicable future transportation improvements in existing rights-of-way or along new development project frontages (e.g., sidewalks) would be required to meet these standards to ensure flooding from 25-year and/or 10-year storm events can be adequately contained.

Stormwater Drainage System

As stated above, existing Federal, State, and local regulations would ensure future transportation improvements prepare and implement the appropriate studies and BMPs to reduce project-related runoff and pollutants during construction and operations. Given the nature of the transportation improvements, the improvements are not anticipated to increase runoff volumes in a manner that would exceed existing and planned stormwater drainage system capacities. In addition to requiring separate environmental review under CEQA, future developers implementing transportation improvements as part of larger development projects would also be require to pay drainage/flood control improvement fees per Municipal Code Section 15.64.060, *Drainage/Flood Control Improvements Fee*, to mitigate stormwater runoff impacts caused by new development. Further, Municipal Code Section 16.24.140, *Hydrology Study*, requires a hydrology study to be submitted and approved prior to the filing of the final map, and the anticipated flow through the subdivisions and/or potential drainage problems would be mitigated through the installation of drainage structures such as culverts, storm drains, or other improvements in accordance with Municipal Code Section 16.24.150, *Mitigation of Storm and Nuisance Water Runoff*.

Overall, upon compliance with existing regulations, future transportation improvement projects would not alter existing drainage patterns or substantially increase runoff volumes or rates in a manner that would result in substantial erosion or siltation, cause flooding on- or off-site, or exceed stormwater drainage system capacities. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.6.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

WATER QUALITY

- **FUTURE IMPROVEMENTS, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS, OR OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY.**

Impact Analysis: Cumulative projects developed in accordance with the General Plan buildout could contribute to water quality degradation in the City. However, all cumulative projects would be required to mitigate site-specific hydrologic impacts on a project-by-project basis pursuant to all applicable Federal, State, and local stormwater regulations and requirements, including NPDES permit requirements (i.e., preparation of project-specific SWPPPs, WQMPs, and associated BMP/LID features). Similarly, cumulative projects would also be required to undergo project-level environmental review under CEQA on a case-by-case basis.

The proposed program does not propose site-specific development and would not significantly impact drainage courses and hydrologic flows throughout the City. As discussed in Impact Statement HWQ-1, in compliance with NPDES permit requirements, applicable transportation improvement projects would be required to implement project-specific SWPPPs and WQMPs to minimize off-site discharge of anticipated and potential pollutant runoff during the construction and post-construction phase. As a result, future transportation improvement projects would not result in the violation of water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Implementation of the proposed program would not result in a substantial cumulative contribution to water quality impacts and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

DRAINAGE PATTERNS

- **FUTURE IMPROVEMENTS, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERNS OF THE SITE OR AREA, OR SUBSTANTIALLY INCREASE THE RATE OR AMOUNT OF SURFACE RUNOFF, IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL EROSION, SILTATION, OR FLOODING ON- OR OFF-SITE.**

Impact Analysis: Cumulative projects developed in accordance with the General Plan could alter local drainage patterns and result in substantial erosion/siltation and/or flooding. However, as stated above, cumulative projects would be required to evaluate site-specific hydrologic impacts on a project-by-project basis pursuant to all applicable Federal, State, and local stormwater regulations and requirements (e.g., NPDES and FEMA requirements). These regulations would require project-specific BMPs, LID features, and/or on-site retention techniques, which would reduce peak flow rate or runoff volumes. Preparation of a WQMP may also be required and would include nonstructural/source control and structural/treatment BMPs. Future cumulative projects would also be required to undergo project-level environmental review under CEQA on a case-by-case basis.

As discussed in Impact Statement HWQ-2, impacts pertaining to changes in drainage patterns would be evaluated on a project-by-project basis to ensure a project does not substantially alter a site's drainage pattern, resulting in substantial erosion/siltation, flooding, or significant risk of loss. As detailed above, LID features, BMPs, and on-site retention techniques would be identified in project-level SWPPPs and WQMPs for construction and operation phases, respectively, all of which would reduce peak flow rates and runoff volumes. As such, implementation of the proposed program would not result in a substantial cumulative contribution to erosion, siltation, or flooding on- or off-site and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.7 Hazards and Hazardous Materials

5.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential for the proposed project to expose the public to hazards, hazardous materials, or risk of upset that may be related to existing conditions or new hazards created as a result of the project.

For the purpose of this analysis, the term "hazardous material" refers to both hazardous substances and hazardous waste. A material is defined as "hazardous" if it appears on a list of hazardous materials prepared by a Federal, State, or local regulatory agency, or if it possesses characteristics defined as "hazardous" by such an agency. A "hazardous waste" is a solid waste that exhibits toxic or hazardous characteristics (i.e., ignitability, corrosivity, reactivity, and/or toxicity).

5.7.1 EXISTING SETTING

ASBESTOS-CONTAINING MATERIALS

Structures within Lancaster constructed between the 1940s and the 1960s may be associated with hazardous building materials (e.g., asbestos-containing material [ACM] and/or lead-based paint [LBP]). Additionally, universal waste (certain categories of hazardous waste such as batteries, pesticides, mercury-containing equipment, and lamps that are commonly generated by a wide variety of establishments) may also be present within Lancaster.

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. The California Division of Occupational Safety and Health (Cal/OSHA) asbestos construction standard (Title 8, California Code of Regulations (CCR), Section 1259) defines ACM as material containing more than one percent asbestos. Asbestos Containing Construction Material (ACCM) is defined as any manufactured construction material which contains more than one tenth of one percent asbestos by weight (a lower threshold than the one percent for ACM). Suspect materials that may contain ACMs include, but may not be limited to, drywall systems, floor tiles, ceiling tiles, and roofing systems.

LEAD-BASED PAINTS

Lead has long been used as a component of paint, primarily as a pigment and for its ability to inhibit and resist corrosion. Over time, as concern over the health effects associated with lead began to grow, health and environmental regulations were enacted to restrict the use of lead in certain products and activities in the U.S. In the last 25 years, lead-based paint, leaded gasoline, leaded can solder, and lead-containing plumbing materials were among the products that were gradually restricted or phased out of use.

REGULATORY PROPERTIES WITHIN THE CITY

Many existing industrial, institutional, and commercial/retail uses currently handle, store, and/or transport hazardous materials/waste within the City. The following describes existing uses that have reported such activities to the SWRCB and/or the Department of Toxic Substances Control (DTSC). It is acknowledged that other uses, not listed below, may also handle, store, and/or transport hazardous materials/waste, as this list is not meant to be all inclusive.

UNDERGROUND STORAGE TANKS

The SWRCB's GeoTracker is a data warehouse that tracks regulatory data regarding underground fuel tanks, fuel pipelines, and public drinking water supplies. GeoTracker was developed pursuant to a mandate by the California State Legislature (Assembly Bill 592, Senate Bill 1189) to investigate the feasibility of establishing a Statewide Geographic Information System (GIS) database for leaking underground fuel tank (LUFT) sites. The GeoTracker database contains well, tank, and pipeline data for California.

A search of the GeoTracker database conducted by Michael Baker International revealed a total of 205 regulated sites within the City, as of October 22, 2021. Of these sites, approximately 135 were reported as leaking underground storage tank (LUST) sites with one exception, the Mission Linen Supply, located at 44926 North Yucca Avenue, which is a former dry cleaning facility where groundwater has been impacted primarily by tetrachloroethylene). Of the 135 sites with reported LUSTs, six have not been granted case closure, indicating the releases have not been remediated or mitigated to the satisfaction of the overseeing regulatory agency and no longer pose a threat to human health or the environment. Additionally, approximately 70 of the 205 regulated sites are permitted UST sites.

SITES HANDLING, STORING, AND TRANSPORTING HAZARDOUS MATERIALS

The DTSC's EnviroStor database is an online search and GIS tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. It also identifies facilities that are authorized to treat, store, dispose of, or transfer hazardous waste. The EnviroStor database includes lists of the following site types: Federal Superfund sites (National Priority List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides site name, site type, status, address, any restricted use (recorded deed restrictions), past use(s) that caused contamination, potential contaminants of concern, potential environmental media affected, site history, planned and completed activities.

A search of EnviroStor conducted by Michael Baker International revealed a total of 26 listed sites of the aforementioned types within the City as of October 22, 2021. Of the 26 sites reported, three sites are active, three sites are inactive and may need evaluation, and 18 sites are closed with no action required. Additionally, one of the 26 sites is referred to another agency for oversight, and one other site is undergoing case closure.

PAST RELEASES/CORTESE LIST

Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to CCR Tile 14 Section 18051 to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. Specifically, Government Code Section 65962.5 requires the DTSC and SWRCB to compile and update a regulatory sites listing per the Code Section's criteria. Additionally, the State Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and are subject to water analysis pursuant to Health and Safety Code Section 116395. These lists are collectively known as the "Cortese List".[1]

According to the SWRCB's GeoTracker database, approximately 136 properties within the City are listed pursuant to Government Code Section 65962.5.[2] Specifically, these sites have reported past releases of hazardous materials to the soil, surface water, soil gas, and/or groundwater, all of which were reported as incidents involving USTs leakage. Further, one site within the City has been listed by SWRCB as a site with "active" Cease and Desist Order and Cleanup and Abatement Order.[3]

TRANSPORT OF HAZARDOUS MATERIALS/WASTE

The major transportation arterials within the City are State Route 14 (SR-14; Antelope Valley Freeway) and State Route 138 (SR-138). According to the California Code of Regulations Title 13, Division 2, Chapter 6, Article 1, *Explosive Routes and Stopping Places*, SR-14 and SR-138 are designated by the California Highway Patrol (CHP) for explosive transport. A variety of hazardous materials are also handled and transported by Union Pacific Railroad (UPRR), which is controlled by State and Federal regulations. According to the City's *Multi-Hazard Functional Plan*, hundreds of thousands of tons of hazardous materials are shipped by rail through the City each year. The railroad line is oriented in a north/south direction, parallel to Sierra Highway, and roughly bisects the City. Transportation accidents involving hazardous materials could occur on any of the routes, potentially resulting in explosions, physical contact by emergency response personnel, environmental degradation and exposure to the public via airborne exposure.

AIRCRAFT OPERATIONS

There are four airport facilities located in and around the City of Lancaster, including the Edwards Air Force Base (located at 305 East Popson Avenue in the community of Edwards), the General William J. Fox Airfield (located at 4725 William J Barnes Avenue in the City of Lancaster), the U.S.

[1] California Environmental Protection Agency, *Cortese List Data Resources*, https://calepa.ca.gov/sitecleanup/corteselist/, accessed January 27, 2022.

[2] California Environmental Protection Agency, *Cortese List Data Resources*, *List of Leaking Underground Storage Tank Sites from the State Water Board's GeoTracker database*, https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=&city=&zip=&county=&SITE_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search, accessed January 27, 2022.

[3] California Environmental Protection Agency, *Cortese List Data Resources, List of "active" CDO and CAO from Water Board (MS Excel, 1,453 KB)*, https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CDOCAOList.xlsx, accessed January 27, 2022.

Air Force Plant 42 (located at 2501 East Avenue P in the City of Palmdale), and the Palmdale Regional Airport (located at 41000 20th Street East in the City of Palmdale). Both Edwards Air Force Base and U.S. Air Force Plant 42 are military facilities; the U.S. Air Force Plant 42 shares the same site and runways with the Palmdale Regional Airport. It is acknowledged the Palmdale Regional Airport is not currently operational.

SCHOOL SITES

The City is served by four school districts: Lancaster School District, Westside Union School District, Eastside Union School District, and Antelope Valley Union High School District. These districts provide educational services for students in kindergarten through 12th grade. Education facilities and resources within Lancaster also include joint-use programs, and private and public education.

5.7.2 REGULATORY SETTING

FEDERAL LEVEL

According to the U.S. Environmental Protection Agency (EPA), a "hazardous" waste is defined as one "which because of its quantity, concentrations, or physiochemical or infectious properties, may either increase mortality or produce irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed" (U.S. Public Health and Welfare Code Section 6903). Special handling and management are required for materials and wastes that exhibit hazardous properties. Treatment, storage, transport, and disposal of these materials are highly regulated at both the Federal and State levels. The Federal and State laws provide the "cradle to grave" regulation of hazardous wastes. Businesses, institutions, and other entities that generate hazardous waste are required to identify and track their hazardous waste from the point of generation until it is recycled, reused, or disposed of. Compliance with Federal and State hazardous materials laws and regulations minimizes the potential risks to the public presented by these potential hazards.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) is the principal Federal law that regulates generation, management, and transportation of hazardous waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. The primary responsibility for implementing RCRA is assigned to the EPA's DTSC, although individual states are encouraged to seek authorization to implement some or all RCRA provisions.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is a law developed to protect the water, air, and soil resources from the risks created by past chemical

disposal practices. This law is also referred to as the Superfund Act and regulates sites on the National Priority List, which are called Superfund sites.

Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting State, local, and Federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The HMTUSA statute includes provisions to encourage uniformity among different State and local highway routing regulations, to develop criteria for the issuance of Federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

Emergency Planning and Community Right-To-Know Act (EPCRA)

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation may be cited as the "Emergency Planning and Community Right-to-Know Act of 1986" (EPCRA). The EPCRA required the establishment of State commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plan. Under the requirements, local emergency planning committees are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present;
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan);
- A plan for notifying the community that an incident has occurred;
- The names of response coordinators at local facilities; and
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The local emergency planning committee is required to review, test, and update the plan each year. The goal of the plan is to improve public- and private-sector readiness and to mitigate local impacts resulting from natural or man-made emergencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to State and local agencies the location and quantities of chemicals stored on-site. Under Section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report off-site transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The

EPA maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

National Emission Standards for Hazardous Air Pollutants

The National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants established by the EPA. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Sources subject to NESHAPs are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance.

STATE LEVEL

The EPA and the DTSC have developed and continue to update lists of hazardous wastes subject to regulation. In addition to the EPA and DTSC, the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater. Other State agencies involved in hazardous materials management include the Office of Emergency Services (OES), California Department of Transportation (Caltrans), CHP, California Air Resources Board (CARB), and the California Integrated Waste Management Board.

Hazardous Materials Release Notification

Many State statutes require emergency notification of a hazardous chemical release, including, but not limited to, the following:

- California Health and Safety Codes Sections 25270.8, and 25507;
- Vehicle Code Section 23112.5;
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161);
- Government Code Sections 51018, 8670.25.5 (a);
- Water Codes Sections 13271, 13272; and
- California Labor Code Section 6409.1 (b)10.

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration pursuant to the California Labor Code Section 6409.1(b).

Hazardous Materials Disclosure Programs

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include: Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention (CalARP) Program, the UST Program, and the Aboveground Petroleum Storage Tank (APST) Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs).

Hazardous Materials Business Plans

Both the Federal government (Code of Federal Regulations) and the State of California (California Health and Safety Code) require all businesses that handle more than a specified amount - or "reporting quantity" - of hazardous or extremely hazardous materials to submit a hazardous materials business plan (business plan) to their CUPA. Chapter 6.95 of the Health and Safety Code establishes minimum Statewide standards for a business plan. The Los Angeles County Code of Ordinances Section 12.64.030 requires all hazardous materials handlers operating under the jurisdiction of Los Angeles County to electronically submit an updated Hazardous Materials Business Plan (HMBP) and/or a certification statement including hazardous materials inventory, site map, contingency plan and the employee training plan information via the California Environmental Reporting System annually.

An HMBP must include an inventory of the hazardous materials at the facility. Businesses must update their HMBP at least every three years and the chemical portion every year. Also, HMBPs must include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures for immediate notification of all appropriate agencies and personnel, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

Transportation of Hazardous Materials/Wastes

Transportation of hazardous materials/wastes is regulated by CCR Title 26. The U.S. Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling, and routing) and enforces Federal and State regulations and respond to hazardous materials transportation emergencies along with the California Highway Patrol. Emergency responses are coordinated as necessary between Federal, State, and local governmental authorities and private persons through a State-mandated Emergency Management Plan.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

Department of Toxic Substances Control

The responsibility for implementation of RCRA was given to DTSC in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California but not by EPA are called "non-RCRA hazardous wastes."

Lahontan Regional Water Quality Control Board

The Lahontan RWQCB is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater. The Underground Storage Tank Program protects public health and safety and the environment from releases of petroleum and other hazardous substances from UST systems. Such sites include active and inactive gasoline stations, agricultural sites, brownfield redevelopment sites, airports, bulk petrochemical storage terminals, pipeline facilities, and various chemical and industrial facilities. The Site Cleanup Program (SCP) focuses on releases of pollutants to soils and groundwater, but in some cases also to surface waters and sediments. SCP sites include those with pollution from recent or historical surface spills and subsurface releases (e.g., pipelines, sumps), along with other unauthorized discharges that pollute or threaten to pollute surface waters or groundwater.

REGIONAL LEVEL

County of Los Angeles

Hazardous Materials Control Program

In May 1982, the Los Angeles County Board of Supervisors established the Hazardous Materials Control Program within the Department of Health Services. Originally, the Program focused on the inspection of businesses that generate hazardous waste, but has since expanded to include hazardous materials inspections, criminal investigations, site mitigation oversight, and emergency response operations. On July 1, 1991, the Program was transferred to the Los Angeles County Fire Department (LACFD) and its name changed to Health Hazardous Materials Division (HHMD).

The HHMD's mission is to protect the public health and the environment throughout Los Angeles County from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight. The Hazardous Materials Specialists are environmental health professionals dedicated to preventing pollution by serving both the public and business communities in Los Angeles County.

Household Hazardous and E-Waste Program

The Los Angeles County Sanitation District, in cooperation with the Los Angeles County Department of Health Services (DHS), established the Household Hazardous and E-Waste (electronic waste) Roundup Program. The Household Hazardous Waste Collection Program provides Los Angeles County residents a legal and cost-free way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash.

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for Public Health and Safety

The Plan for Public Health and Safety of the General Plan discusses natural and manmade conditions in the City which may pose certain levels of health and safety hazards to life and property within Lancaster, along with a comprehensive program to mitigate those hazards to acceptable levels. To a great extent, the creation, transportation, storage, use, and disposal of hazardous materials is regulated by Federal, State, and County agencies, precluding action by the City. There are, however, well defined areas within which the City has the responsibility to enforce hazardous material regulations. The following policies pertaining to hazardous materials apply to the proposed project:

Objective 4.5 Protect life and property from the potential detrimental effects (short and long term) of the creation, transportation, storage, treatment, and disposal of hazardous materials and wastes within the City of Lancaster.

Policy 4.5.1: Ensure that activities within the City of Lancaster transport, use, store, and dispose of hazardous materials in a responsible manner which protects the public health and safety.

City of Lancaster General Plan Safety Element Update

The Safety Element is one of the State-mandated elements of the General Plan and is currently being updated to comply with recent State legislation and guidelines. It presents the City's overall goals, policies, and action programs to facilitate resiliency and prosperity. Through incorporating data and maps, addressing vulnerability to climate change, and incorporating policies and programs from the City's update to the City's Local Hazard Mitigation Plan, technical amendments to the Safety Element are intended to achieve compliance with State, regional and local policies and guidelines. The Safety Element organizes safety goals and policies into the following sections: Geology and Seismicity,

Flooding, Noise, Air Installation Land Use Compatibility, Hazardous Materials, Crime Prevention and Protection Services, Fire Prevention and Suppression Services, Disaster Preparedness and Evacuation, Emergency Medical Facilities, and Climate Adaptation. The Safety Element Update was approved by City Council in June 2022.

Lancaster Municipal Code

Municipal Code Chapter 17.40, Article VII, *Hazardous Waste Facilities*, establishes a uniform conditional use permit application and review process for the location, design and maintenance of hazardous waste facilities to ensure protection of the health, safety, and welfare of City residents. All land use decisions made with regard to an application for a hazardous waste facility project is required to be consistent with the approved Los Angeles County Hazardous Waste Management Plan. Review at the local level allows the community greater protection from hazardous waste facility projects being sited and located under County guidelines, which may not adequately address unique or specific circumstances within Lancaster. The permit process requires a detailed application, proper environmental assessment, and public hearings before both the Lancaster Planning Commission and City Council, which ensures that site development occurs in an orderly, safe, and environmentally sound manner.

Section 10.04.240, *Vehicles Transporting Hazardous Materials-Parking Restrictions*, of the Municipal Code addresses vehicles transporting hazardous materials. This section aims to provide rules that prevent relief of a driver from any obligation imposed by Federal, State, or local laws relating to the transportation of hazardous materials or explosives, motor carrier safety regulations, or the placement of warning signs or devices when a motor vehicle is stopped on a public street or highway. Specifically, the section requires a vehicle transporting hazardous materials to be attended at all times by its driver or a qualified representative. It also prohibits the vehicle from being parked on any highway, highway shoulder, street, alley, public way or public place, or within five feet of a residential zone, 1,000 feet of any school, or 300 feet of any bridge or tunnel, except for brief periods when mechanical or equipment failure or disablement or malfunction of the vehicle, or the necessities of operation require the vehicle to be parked and make it impractical to park the vehicle in any other place.

Antelope Valley Environmental Collection Center

The Antelope Valley Environmental Collection Center (AVECC), located at 1200 West City Ranch Road in the City of Palmdale, is a joint partnership between the City of Lancaster, County, and Waste Management. AVECC is available to the residents of Lancaster to dispose of household hazardous waste at no cost. The AVECC is open the first and third Saturday of every month and collects household hazardous waste, including batteries, oil, paint, anti-freeze and pesticides, electronic waste (e.g., televisions, computers, monitors, cell phones, and printers), as well as sharps.

Lancaster residents also have the option to dispose of electronic waste at the Lancaster City Yard (615 West Avenue H) or Lancaster Landfill and Recycling Center (600 East Avenue F) at no additional cost.

5.7.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

The issues presented in the Initial Study Environmental Checklist (Appendix G of the *CEQA Guidelines*) have been utilized as thresholds of significance in this Section. Accordingly, hazards and hazardous materials impacts resulting from the implementation of the proposed project may be considered significant if they would result in the following:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (refer to Impact Statements HAZ-1 and HAZ-2);

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (refer to Impact Statements HAZ-1 and HAZ-2);

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (refer to Impact Statement HAZ-1);

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (refer to Impact Statement HAZ-3);

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area (refer to Section 8.0, *Effects Found Not To Be Significant*);

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (refer to Section 8.0, *Effects Found Not To Be Significant*); and

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fire (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.7.4 IMPACTS AND MITIGATION MEASURES

CONSTRUCTION-RELATED IMPACTS

HAZ-1 SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH FUTURE IMPROVEMENTS COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT, OR THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.

Impact Analysis: Construction activities associated with new transportation improvements funded by the proposed program could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions or the transport, use, or disposal of hazardous materials. Potential construction-related impacts in this regard are discussed below.

Disturbance of Contaminated Properties

As discussed under Section 5.7.1, *Existing Setting*, numerous properties in the City are or were listed as regulatory sites for containing USTs, handling, storing, and/or transporting hazardous materials/waste, or having reported instances of hazardous releases, all of which could have impacted soil, soil gas, surface water, and/or groundwater.

Future VMT-reducing transportation infrastructure improvements funded by the proposed program could involve grading and excavation activities that could expose construction workers and the public to hazardous substances and hazardous waste in the soil, soil vapor, and/or groundwater from the listed sites. However, future improvement projects would predominantly occur within the existing disturbed rights-of-way. Moreover, future improvements would be required to comply with existing applicable Federal, State, and local laws related to the hazardous materials.

Additionally, all future transportation improvements, including those implemented as part of development projects within the City, would be required to undergo project-level environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) on a case-by-case basis. Similarly, future development projects and associated transportation improvements would be required to comply with existing applicable Federal, State, and local laws related to the hazardous materials. The LACFD, Lahontan RWQCB, as well as the DTSC are responsible for monitoring regulatory sites (e.g., permitted UST and APST facilities) and preventing accidental release of hazards and hazardous materials. For example, owners or operators of APST and UST facilities are required to file a tank facility statement and develop and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan. Compliance with these programs would reduce the likelihood and severity of accidents involving leaking storage tanks, which could pollute ground and surface waters. If leaking storage tanks occur, the Lahontan RWQCB is responsible for overseeing cleanup actions. Additionally, Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous

materials. Compliance with regulations established by these agencies would reduce potential risks related to accidental release of hazardous materials from contaminated properties during construction to less than significant levels.

Hauling and Disposal of Hazardous Waste

Construction activities associated with future transportation improvements funded through implementation of the proposed program could expose construction workers and the public to hazardous substances/materials involving the transport, use, and storage of construction materials, equipment (i.e., oil, diesel fuel, and transmission fluid), and demolition debris. However, these activities would be short-term, and the materials used would not be in such quantities, or stored in such a manner, as to pose a significant safety hazard. All construction activities would be required to demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. Specifically, regulations established by the DOT, Caltrans, and CHP as well as the HMTUSA statute would ensure that impacts concerning the hauling or disposal of hazardous materials during construction are reduced to less than significant levels.

School Sites

Construction activities associated with future transportation improvements funded by the proposed program could involve construction activities within one-quarter mile of an existing or proposed school and thus, could expose children to hazardous substances/materials involving the transport, use, and storage of construction materials/equipment (i.e., oil, diesel fuel, and transmission fluid) and demolition debris. However, as discussed above, these activities would be short-term, and the materials used would not be in such quantities, or stored in such a manner, as to pose a significant safety hazard. All construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. Specifically, regulations established by the DOT, Caltrans, and CHP as well as the HMTUSA statute would ensure that impacts concerning the transport, use, or disposal of hazardous materials during construction within one-quarter mile of an existing or proposed school would be less than significant.

Unknown Contaminated Sites

Future transportation improvements funded by the proposed program could involve grading and excavation activities which could reveal unknown hazards and hazardous materials contamination. As stated, future improvements would predominantly occur within the City's existing rights-of-way and would likely not occur on previously undisturbed land. Additionally, future improvements would be required to would be comply with existing applicable Federal, State, and local laws related to the hazardous materials.

Nevertheless, given that the exact location of future transportation improvement projects is unknown at this time, Mitigation Measure HAZ-1 establishes procedures to minimize potential risks to the public and environment if unknown wastes or suspect materials believed to involve hazardous waste

or materials are encountered during construction of future transportation improvements. Compliance with Mitigation Measure HAZ-1 would further minimize potential risks related to accidental release of hazardous materials from unknown contamination discovered during construction.

Overall, compliance with existing applicable Federal, State, and local laws related to the hazardous materials and Mitigation Measure HAZ-1 would reduce potential construction-related impacts in this regard to less than significant levels.

Mitigation Measures:

HAZ-1 If unknown wastes or suspect materials are discovered during construction activities associated with improvements funded by the VMT Mitigation Program that are believed to involve hazardous waste or materials, the construction contractor shall implement the following:

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;
- Notify the City of Lancaster Development Services Director/City Engineer;
- Secure the area as directed by the Development Services Director/City Engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator (e.g., Los Angeles County Fire Department, Lahontan Regional Water Quality Control Board, and/or Department of Toxic Substances Control, as applicable). The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

OPERATIONAL IMPACTS

HAZ-2 LONG-TERM OPERATIONAL ACTIVITIES ASSOCIATED WITH FUTURE IMPROVEMENTS COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT, OR THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.

Impact Analysis: Currently, there are a variety of existing land uses within the City that use, store, or transport hazardous substances, as well as generate hazardous waste. Future transportation infrastructure improvements funded by the proposed program can include crosswalks, pedestrian refuge islands, roundabouts, widened sidewalks, restriped roadways, and multi-purpose paths, among

others, none of which would have operational impacts in regard to hazards and hazardous materials. Overall, the proposed project would not involve the development of land uses that have the potential to significantly increase risks pertaining to release of hazardous materials through the routine transport, use, or disposal of hazardous materials. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

HAZARDOUS MATERIALS SITES

HAZ-3 FUTURE IMPROVEMENTS ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD BE LOCATED ON A HAZARDOUS MATERIAL SITES PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT.

Impact Analysis: As discussed, numerous properties within the City are listed as regulatory sites on the "Cortese List" pursuant to Government Code Section 65962.5.

Future improvements accommodated through implementation of the proposed program could be located on these sites and could potentially expose construction workers and future users/residents to previously undiscovered hazardous substances present in the soil, soil gas, and/or groundwater on beneath these sites. All future transportation improvements would be required to undergo separate environmental review under CEQA to evaluate project- and site-specific hazardous impacts. Additionally, as discussed under Impact Statements HAZ-1 and HAZ-2, future transportation improvements would be required to comply with existing Federal, State, and local laws related to the hazardous materials established by the regulating agencies, such as the LACFD, Lahontan RWQCB, DTSC, DOT, Caltrans, CHP, and Cal/OSHA. Additionally, future transportation improvement projects would be required to comply with Mitigation Measure HAZ-1, which establishes procedures to minimize potential risks to the public and environment if unknown wastes or suspect materials believed to involve hazardous waste or materials are encountered during construction. Compliance with regulations established by these agencies as well as implementation of Mitigation Measure HAZ-1 would reduce potential risks from hazardous materials sites to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure HAZ-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.7.5 CUMULATIVE IMPACTS

Section 15355 of the *CEQA Guidelines* requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts."

- **SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH FUTURE IMPROVEMENTS, COMBINED WITH OTHER RELATED PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE HAZARDS TO THE PUBLIC OR ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT, OR THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.**

Impact Analysis: Cumulative projects developed in accordance with the General Plan could result in the handling of hazardous materials, potential for accidental conditions, or an increase in the transport of hazardous materials, during site disturbance, demolition, and/or grading activities. Cumulative projects would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts in this regard and any required mitigation. Future construction activities associated with cumulative projects would also be required to comply with existing Federal, State, and local laws and regulations related to the handling/transport of hazardous materials/waste.

As discussed above, with implementation of existing laws and regulations established by the LACFD, Lahontan RWQCB, DTSC, DOT, Caltrans, and Cal/OSHA, among others, and implementation of Mitigation Measure HAZ-1, the proposed project would result in less than significant impacts with regards to short-term construction activities associated with future transportation improvements. As such, the project would not contribute to a cumulatively considerable impact and impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure HAZ-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **LONG-TERM OPERATIONAL ACTIVITIES ASSOCIATED WITH FUTURE IMPROVEMENTS, COMBINED WITH OTHER RELATED PROJECTS, COULD RESULT IN CUMULATIVELY CONSIDERABLE HAZARDS TO THE PUBLIC OR ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT, OR THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.**

Impact Analysis: Cumulative projects that result in the operations of facilities that use, handle, or transport a regulated hazardous substance or material would be required to submit an HMBP and/or a certification statement, including hazardous materials inventory, site map, contingency plan, and employee training plan information via the California Environmental Reporting System annually pursuant to Los Angeles County Code of Ordinance, Section 12.64.030. Compliance with all applicable Federal and State laws and regulations related to the handling/storage/transport of hazardous materials would reduce the likelihood and severity of accidents, thereby ensuring that long-term operational impacts associated with cumulative projects are reduced to less than significant levels. Further, cumulative projects would be required to undergo project-specific environmental review

under CEQA and the City's discretionary review process to determine potential impacts in this regard and any required mitigation.

As stated above, given the nature of the future transportation improvements associated with the proposed program, such improvements would not result in long-term operational impacts with regards to hazards and hazardous materials. Each transportation improvement would also be required to undergo separate environmental review under CEQA. Thus, the project would not cumulatively contribute towards a significant impact in this regard. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

- **FUTURE IMPROVEMENTS COULD BE LOCATED ON A HAZARDOUS MATERIAL SITES PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO THE PUBLIC OR THE ENVIRONMENT.**

Impact Analysis: Cumulative projects developed in accordance with the General Plan could occur on hazardous material sites pursuant to Government Code Section 65962.5. As stated, cumulative projects would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential impacts in this regard and any required mitigation.

Should future transportation improvements associated with the proposed program be located on a hazardous material site pursuant to Government Code Section 65962.5, construction activities would be required to comply with all existing Federal, State, and local laws related to the hazardous materials established by the implementing agencies such as the LACFD, Lahontan RWQCB, DTSC, DOT, Caltrans, CHP, and Cal/OSHA, among others. Further, each transportation improvement project would be required to comply with Mitigation Measure HAZ-1, which establishes procedures to minimize potential risks to the public and environment if unknown wastes or suspect materials believed to involve hazardous waste or materials are encountered during construction. As such, project compliance with applicable existing regulations and implementation of Mitigation Measure HAZ-1 would ensure that a less than significant cumulative impact occurs.

Mitigation Measures: Refer to Mitigation Measure HAZ-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.7.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to hazards and hazardous materials have been identified.

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5.8 Transportation

5.8 TRANSPORTATION

This section evaluates potential transportation impacts resulting from implementation of the proposed project. This section describes the existing circulation system within the City, conditions of the local roadway system, transit system, and bicycle network, as well as relevant Federal, State, and local regulations related to transportation.

5.8.1 EXISTING SETTING

EXISTING ROADWAY CIRCULATION SYSTEM

The Antelope Valley Freeway (State Route 14 [SR-14]) is an important regional north-south arterial within the Antelope Valley. SR-14 provides the primary regional connection between the City of Lancaster, City of Palmdale, and the Santa Clarita Valley, as well as metropolitan Los Angeles County, approximately 45 miles to the south. SR-14 runs north to Kern County and then transitions to Interstate Highway 395 north of the community of Inyokern. Highway 58 branches from SR-14 in the community of Mojave to extend northwest to the City of Bakersfield.

Various other regional arterials in the vicinity of the City provide regional connectivity. Avenue D (State Route 138) extends west from SR-14, and connects to the Golden State Freeway (Interstate 5) near the Ventura County border, and extends east from the City of Palmdale, connecting with Interstate 15. Avenue I turns into Lancaster Road at 110th Street West, and then proceeds northwest to intersect with Avenue D at 250th Street West. Sierra Highway links Lancaster with the community of Rosamond to the north and the City of Palmdale to the south. Sierra Highway continues south and connects to San Fernando Road in the northern San Fernando Valley. Consequently, Sierra Highway is commonly used as an alternate route to SR-14 by southbound commuters trying to connect to the San Fernando Valley. Similarly, mountain roads such as Soledad Canyon Road, Bouquet Canyon Road, and San Francisquito Canyon Road are utilized to travel from the Antelope Valley to Santa Clarita Valley.

Roadway Classifications

The existing regional and local roadway network in Lancaster is a hierarchical system of highways and local streets developed to provide regional traffic movement and local access. The roadway network is primarily designed in a north-south and east-west grid pattern with major and secondary arterials spaced at one mile and one-half mile intervals, respectively. The following section provides a description of the functional classification of the facilities within the project area.

Regional Arterials

Regional arterials are limited access facilities that provide service to non-local through trips with minimal direct access to adjacent land uses. They have a design cross section of eight lanes (four in each direction) with medians and turn lanes at a limited number of access points. Regional arterials are designated as 106-foot wide roadways, typically within a 120-foot right-of-way.

Major Arterials

Major arterials are primarily intended to serve through, non-local traffic and provide limited local access. They have a cross-section of three through lanes, and a raised landscape median and turn lanes at a limited number of access points. Major arterials are designated as 84-foot wide roadways, within a 100-foot right-of-way.

Secondary Arterials

Secondary arterials provide more local access than major arterials, while also providing a reduced level of non-local through traffic service. Secondary arterials have a cross-section of four through lanes, a bike lane in each direction and a left-turn lane within 68 feet of curb-to-curb space, within an 84-foot right-of-way. These roadways are usually undivided with the potential for limited on-street parking, turn lanes at major intersections, and partial control of vehicular and pedestrian access from driveways, cross streets, and crosswalks.

Collectors

The primary role of collector roadways is to provide access between the arterial network and the neighborhoods and commercial development. These roadways are typically two lanes wide with limited access to driveways and cross streets. They are usually undivided and do not have turn lanes at intersections. Collectors in Lancaster are 44 feet wide, curb to curb, within 64-foot rights-of-way.

Local Residential Streets

Local residential streets serve adjacent residential land uses only, allowing access to residential driveways and providing on-street parking for neighborhoods. Local residential streets in Lancaster are designated as 42-foot wide roadways within a 60-foot right-of-way. These streets are not intended to serve through traffic traveling from one street to another.

PUBLIC TRANSIT

Public transit service in the City includes Antelope Valley Transit Authority (AVTA) local fixed-route bus services, AVTA commuter bus services, and Metrolink commuter rail lines, among others, as described below.

AVTA Local Fixed-Route Bus Services

AVTA provides fixed-route bus services throughout Lancaster, including Routes 1, 4, 5, 7, 8, 9, 11, 12, 50, 94, and 97.[1] Several routes travel through downtown Lancaster and other routes provide connections from Lancaster to the City of Palmdale and communities of Sun Village, Littlerock, and Pearblossom to the south and Lake Los Angeles to the east.

[1] Antelope Valley Transit Authority, *Local Transit Service*, https://www.avta.com/system-map.php, accessed January 31, 2022.

Lake L.A. Express

The Lake L.A. Express line provides service between Lancaster City Park and the Town Center Plaza in Lake Los Angeles primarily via Avenue L, 20th Street East, Avenue J, 170th Street East, Avenue N, 155th Street East, and Avenue N-8.

AVTA Commuter Bus Routes

AVTA operates three commuter bus service routes from the Antelope Valley to downtown Los Angeles, Century City and San Fernando Valley. Within the Antelope Valley, all commuter routes stop at Lancaster City Park and the Palmdale Transportation Center.

- Route 785 (Lancaster/Palmdale to Los Angeles) provides commuter service to downtown Los Angeles.
- Route 786 (Lancaster/Palmdale to Century City/West Los Angeles) provides commuter service to Westwood, Century City, Beverly Hills, West Los Angeles, and West Hollywood.
- Route 787 (Lancaster/Palmdale to West San Fernando Valley) provides commuter service to the San Fernando Valley. This route serves CSU-Northridge and Warner Center, as well as the communities of Granada Hills, Chatsworth, Northridge, Canoga Park, Woodland Hills, Tarzana and Van Nuys.

Metrolink Commuter Rail

The Southern California Regional Rail Authority (SCRRA) operates Metrolink, the commuter rail service of southern California. The Metrolink Lancaster Station is located at 44812 North Sierra Highway and is located along the Antelope Valley Line. The Antelope Valley Line connects downtown Los Angeles (Union Station) to Lancaster (last station) and has stops along the way in Glendale, Burbank, Sun Valley, Sylmar/San Fernando, Newhall, Santa Clarita, Via Princessa, Vincent Grade/Acton, and Palmdale. The current Metrolink schedule for the Antelope Valley Line shows train headways of one to three hours in the morning hours and three to four hours in the afternoon hours. The Lancaster Station also provides connections to other transit services, including AVTA, the Santa Clarita Transit, Amtrak ThruWay Bus, Eastern Sierra Transit Authority, and Kern Transit.

BICYCLE AND PEDESTRIAN FACILITIES

The City has a number of bicycle and pedestrian facilities as described below.

Bicycle Facilities

The City currently has a number of existing Class I, II, and III bikeways on segments of many City streets; refer to Exhibit 5.8-1, *Existing and Proposed Bikeways*. Class I bike paths provide a separate right-of-way (outside the pavement used for automobiles) for bicycles and other uses. Class II bike lanes provide a restricted right-of-way for bicycles, which is most often in the form of a painted line and

signs on the road. Motor vehicles are allowed to enter the bike lane when making turns within 200 feet of an intersection and to park when permitted. Class III bike routes allow for sharing of a travel lane by motor vehicles and bicycles and are indicated only by signs. The City currently has five miles of Class 1 bike paths, 35 miles of Class II bike lanes, and 3 miles of Class III bike routes.[2] As shown on Exhibit 5.8-1, the City also has several Class I, II, and III bikeway improvements proposed throughout Lancaster.

Pedestrian Facilities

The City currently has limited existing trails for recreational users and equestrians; refer to Exhibit 5.8-2, *Existing and Proposed Pedestrian Facilities*. However, the *City of Lancaster Master Plan of Trails and Bikeways* (Master Plan of Trails and Bikeways) proposes a number of pedestrian facilities to establish a network of trails in the future. The Master Plan of Trails and Bikeways aims to implement bike paths, paved multipurpose paths, earthen multipurpose paths, equestrian trails, jogging trails, and pedestrian trails throughout Lancaster; refer to Exhibit 5.8-2.

5.8.2 REGULATORY SETTING

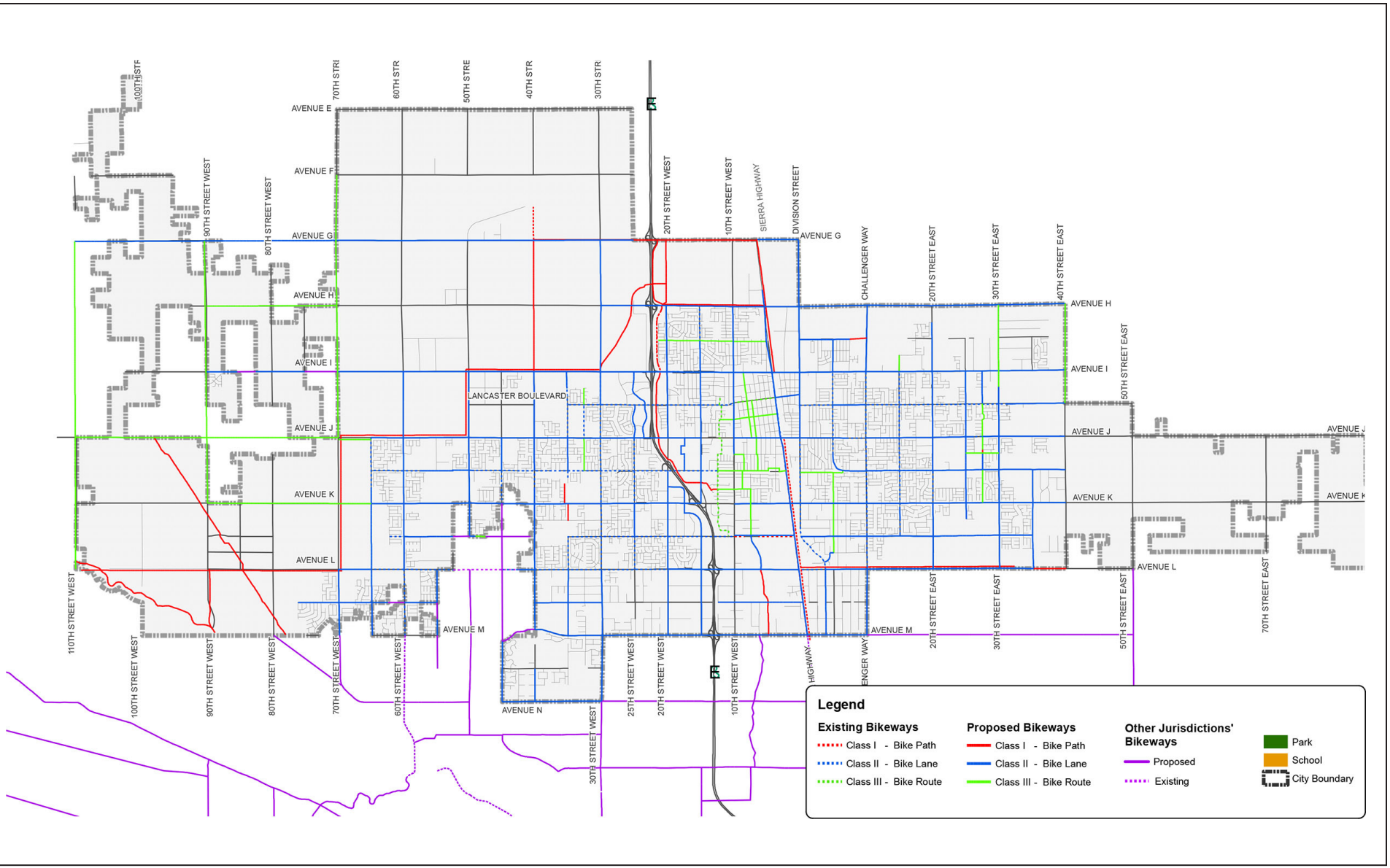
STATE LEVEL

Complete Streets Act of 2008

Assembly Bill 1358 (AB 1358), the Complete Streets Act of 2008, was developed in response to and in support of other legislation aimed at reducing vehicle emissions through reduced trip length and frequency combined with changes in land use policies. Specifically, the bill directs that, "commencing January 1, 2011, that the legislative body of a city or county, upon any substantive revision of the circulation element of a general plan, modify the circulation element to plan for a balanced, multi-modal 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 of the general plan."

The Complete Streets Act is supported by the California Department of Transportation (Caltrans) Deputy Directive DD-64-R1, which memorializes the importance of pedestrian and bicycle facilities to the State's transportation system and outlines responsibilities for Caltrans employees to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets throughout the State.

[2] City of Lancaster, *City of Lancaster Master Plan of Trails and Bikeways*, March 2012.



Source: Ryan Snyder Associates

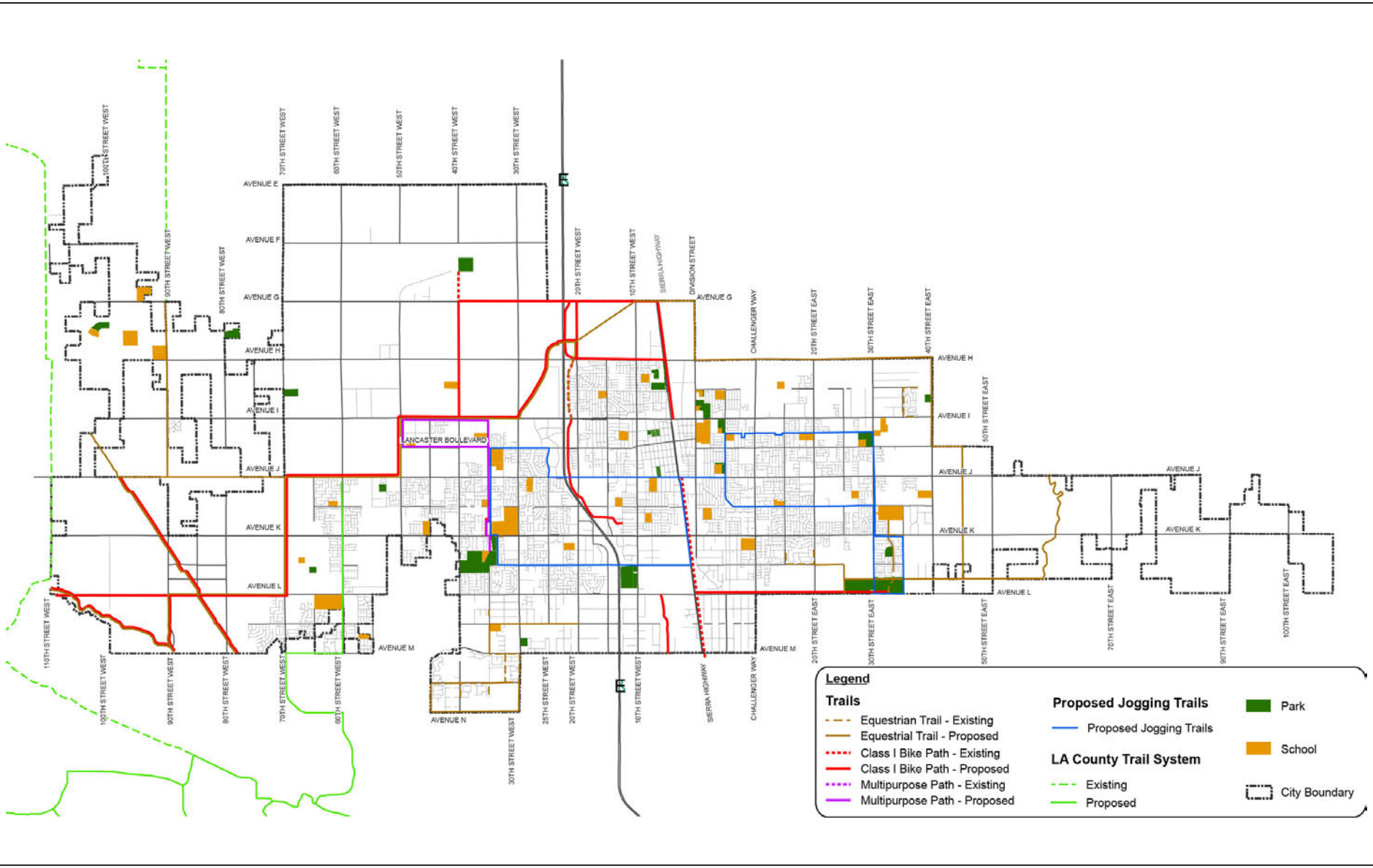
Michael Baker INTERNATIONAL

02/2022 JN 184421

VEHICLE MILES TRAVELED MITIGATION PROGRAM
ENVIRONMENTAL IMPACT REPORT

Existing and Proposed Bikeways

Exhibit 5.8-1



Source: Ryan Snyder Associates

Michael Baker INTERNATIONAL

02/2022 JN 184421

VEHICLE MILES TRAVELED MITIGATION PROGRAM
ENVIRONMENTAL IMPACT REPORT

Existing and Proposed Pedestrian Facilities

Exhibit 5.8-2

Senate Bill 743

In September 2013, the Governor's Office of Planning and Research (OPR) signed SB 743 into law, starting a process that fundamentally changes the way transportation impact analysis is conducted under CEQA. SB 743 identifies VMT as the most appropriate CEQA transportation metric and eliminates of auto delay, or level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. In December 2018, the California Natural Resource Agency certified and adopted the CEQA statute (14 California Code of Regulations Section 15064.3).

REGIONAL LEVEL

SCAG Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, the Regional Council of SCAG formally adopted the *Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing greenhouse gases (GHGs) from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita VMT. Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

LOCAL LEVEL

City of Lancaster General Plan 2030

Plan for Physical Mobility

The Plan for Physical Mobility focuses on transportation issues, such as how goods and people move within Lancaster. The plan recognizes that transportation affects land use, urban design, energy consumption, air quality, and the City's infrastructure. Addressed not only at the local level, but circulation decisions must also be coordinated with regional, State, and Federal agencies, as well as with neighboring communities. Transportation facilities as well as alternative modes of transportation are discussed in the Plan for Physical Mobility. The following goal and policies are applicable to the proposed project:

Objective 14.1: Maintain a hierarchical system which balances the need for free traffic flow with economic realities, such that streets are designed to handle normal traffic flows with tolerances to allow for potential short-term delays at peak hours.

Policy 14.1.1: Design the City's street system to serve both the existing population and future residents

Policy 14.1.2: Maintain and improve the operation of the roadway network by adhering to the circulation system improvements of the Transportation Master Plan for the development and operation of the system, while providing the flexibility to allow consideration of innovative design solutions.

Policy 14.1.3: Require that the fair and equitable cost of constructing arterials which connect outlying urban development to the City core be borne by developments which create the need for them.

Policy 14.1.4: Encourage the design of roads and traffic controls to optimize safe traffic flow by minimizing turning movements, curb parking, uncontrolled access, and frequent stops

Policy 14.1.5: Provide adequate levels of maintenance for all components of the circulation system, such as roadways, sidewalks, bicycle facilities, roadway drainage systems, pedestrian, recreational trails, and similar facilities (see also related policies and specific actions in the Pedestrian, Equestrian and Bicycle Trails' subsection of the Plan for Active Living).

Policy 14.1.6: Work with regional partners to ensure that the regional circulation system provides adequate connections across the Antelope Valley for convenient circulation and rapid emergency access.

Objective 14.2: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.

Policy 14.2.1: Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the project area.

Policy 14.2.2: Manage the City's roadway network so that it is aesthetically pleasing through the development and maintenance of streetscapes.

Policy 14.2.3: Support a roadway network that takes into consideration noise and safety issues, along with other quality of life issues.

Policy 14.2.4: Promote the creation of a high desert transportation corridor which will provide a direct connection between Interstate 5 and Interstate 15 to the City of Lancaster.

Objective 14.4: Reduce reliance of the use of automobiles and increase the average vehicle occupancy by promoting alternatives to single-occupancy auto use, including ridesharing, non-motorized transportation (bicycle, pedestrian), and the use of public transit.

Policy 14.4.1: Under the guidance of the Transportation Master Plan, support and encourage the various public transit companies, ridesharing programs and other incentive programs, that allow residents to utilize modes of transportation other than the private automobile, and accommodate those households within the Urbanizing Area of the City that rely on public transit.

Policy 14.4.2: Promote the use of alternative modes of transportation through the development of convenient and attractive facilities that support and accommodate the services.

Policy 14.4.3: Encourage bicycling as an alternative to automobile travel for the purpose of reducing vehicle miles traveled (VMT), fuel consumption, traffic congestion, and air pollution by providing appropriate facilities for the bicycle riders (see also Policy 10.2.4 and subordinate specific actions of the Plan for Active Living).

Policy 14.4.4: Encourage commuters and employers to reduce vehicular trips by implementing Transportation Demand Management strategies.

Policy 14.4.5: Design transportation facilities to encourage walking, provide connectivity, ADA accessibility, and safety by reducing potential auto/pedestrian conflicts.

Plan for Active Living

The Plan for Active Living of the General Plan focuses on the components of the community's shelter, culture, and lifestyle and on the manner in which those in need can be helped so that all can share in achieving a high quality of life. The following policy is applicable to the proposed project:

Objective 10.2: Through the adoption and implementation of a Master Plan of trails, establish and maintain a hierarchical system of trails (including equestrian, bicycle, and pedestrian trails) providing recreational opportunities and an alternative means of reaching schools, parks and natural areas, and places of employment, and connecting to regional trail systems.

Policy 10.2.4: Facilitate the use of bicycles as an alternative form of transportation, as well as a form of recreation. Promote the creation of a high desert transportation corridor which will provide a direct connection between Interstate 5 and Interstate 15 to the City of Lancaster.

Lancaster Municipal Code

Municipal Code Section 15.64.040, *Street improvements fee*, imposes a fee on all new development in the City to finance the costs of street improvements, including acquisition, widening and reconstruction, street landscaping, intersection improvements and freeway interchange improvements in order to mitigate the additional traffic burdens created by new development to the City's arterial and collector street system.

Municipal Code Section 15.64.050, *Traffic signalization fee*, imposes a traffic signalization fee on all new development in the City to finance the costs of traffic signalization improvements in order to mitigate additional burdens created by new development to the City's traffic congestion beyond the financial ability of the City to control.

City of Lancaster Master Plan of Trails and Bikeways

The *City of Lancaster Master Plan of Trails and Bikeways* (Master Plan of Trails and Bikeways), adopted March 2012, is intended to guide the planning and design of pedestrian, bicycle, and equestrian facilities in a comprehensive manner throughout Lancaster. The City's vision is to create a connected network of on-road and off-road trails and bikeway facilities to accommodate users of all ages and abilities, including equestrians. When implemented, it is anticipated that the proposed network will provide linkages between residential areas, commercial centers, transportation hubs, employment centers, and recreational venues. The Master Plan of Trails and Bikeways includes a summary of the City's public outreach efforts during preparation of the plan; discussion of the plan's context with other neighboring jurisdictions and regional plans; goals, policies, and actions to implement the plan; and discussion of the City's existing bicycle, pedestrian, and trail conditions; Bicycle Plan, Trails Plan, and ADA Transition Plan, potential funding programs, implementation actions, and design guidelines.

Lancaster Master Plan of Complete Streets

The *Lancaster Master Plan of Complete Streets* (Master Plan of Complete Streets) accompanies the General Plan, specifically the Plan for Physical Mobility. The General Plan's emphasis on safety, connectivity, access, and street design flexibility are key principles that mirror the objectives of the Master Plan of Complete Streets. As defined in the plan, complete streets refer to streets, sidewalks, and public rights-of-way that are designed, operated, and maintained to enable safe access for all users including pedestrians, bicyclists, transit riders, and freight and motor vehicle drivers of all ages and abilities.

The Master Plan of Complete Streets is meant to supplement existing engineering practices and requirements to meet the goals of complete streets and includes design guidance for future roadway improvements. While not encompassing all pedestrian, bicycle, and other traffic calming measures available to implement complete street principles in the City, the design guidelines are intended to provide initial design principles so that the development of new and existing streets serve all users and travel modes. In addition, the plan identifies potential complete streets in Lancaster and suggested treatments. The City is obligated to weigh the cost of proposed street improvements against the expected benefit of those improvements, while also considering both the initial and long-term maintenance obligations.

Transportation Analysis Updates in Lancaster

In response to SB 743, the City of Lancaster adopted new transportation impact thresholds utilizing the VMT metric. The *Transportation Analysis Updates in Lancaster* (Lancaster Local Transportation Assessment Guidelines), prepared by Fehr & Peers and dated May 27, 2020, provides guidance on conducting transportation studies in the City. Specifically, the Lancaster Local Transportation Assessment Guidelines provides an overview of SB 743 and what it means for transportation impact analysis in Lancaster; describes the process for determining the City's baseline VMT and describes the analysis methodology and VMT metrics; and outlines the methodology for calculating VMT for projects and plans in the City, provides the threshold of significance, and discusses mitigation options for projects that are found to have a VMT impact.

5.8.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

VMT SIGNIFICANCE THRESHOLDS

In compliance with SB 743, the Lancaster Local Transportation Assessment Guidelines provides new guidance to analyze VMT impacts under CEQA. The guidelines discuss VMT screening; VMT analysis methodology, VMT impact thresholds, and VMT mitigation. The Lancaster Local Transportation Assessment Guidelines closely follow the Governor's Office of Planning and Research (OPR) *Technical Advisory for Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory), dated December 2018.

Specifically, a project can be screened out of VMT analysis if it falls within one of the following categories, as defined by the Lancaster Local Transportation Assessment Guidelines: 1) Project Type Screening, 2) Low VMT Area Screening, 3) Transit Priority Area (TPA) Screening, 4) Affordable Housing Screening, or 5) Transportation Facilities Screening.

If a project does not screen out of VMT analysis, full VMT analysis would be required. CEQA Guidelines Section 15064.7, *Thresholds of Significance*, encourages lead agencies to develop and publish thresholds of significance. Pursuant to Section 15064.7(b), the City can adopt a threshold of significance for VMT by ordinance, resolution, rule or regulation through a public review process supported by substantial evidence. The OPR Technical Advisory identifies 15 percent below the regional average as the threshold for identifying a significant VMT impact for land use projects and plans. This is based on research conducted to determine the VMT reduction needed in order to help the State achieve its climate goals. The California Air Resources Board has quantified the need for VMT reduction in order to meet the State's long-term climate goals and OPR sees reducing VMT to 15 percent below existing conditions as a reasonable threshold for new development projects. OPR guidance is also provided for transportation projects. For roadway widening projects, a significant impact would occur if the project increased the baseline VMT in the study area. The VMT thresholds for projects and plans in the City of Lancaster are summarized below in Table 5.8-1, *VMT Thresholds of Significance*.

Table 5.8-1
VMT Thresholds of Significance

Project Type	Threshold for Determination of Significant VMT Impact
Residential Project	Project exceeds 15 percent below Antelope Valley Planning Area (AVPA) Baseline VMT for home-based VMT per capita
Employment (Commercial or Industrial Project)	Project exceeds 15 percent below AVPA Baseline VMT for home-based work VMT per employee
Regional Retail Project	Project results in a net increase in total VMT per service population in comparison to the AVPA Baseline VMT
Mixed-Use Projects	Evaluate each project land use component separately using the criteria above
Land Use Plans	Plan exceeds 15 percent below AVPA Baseline VMT for Total VMT per service population
Other Land Use Types	Project exceeds 15 percent below AVPA Baseline VMT. For land use types not listed above, the City can determine the appropriate VMT metric depending on the project characteristics. For projects that are generally producing job-related travel, the employment generating VMT (home-based work VMT per employee) can be compared to the baseline. For other projects, the total VMT per service population can be compared to the AVPA baseline, or the net change in Total VMT can be estimated.
Transportation Projects	Project results in an increase in VMT in the study area in comparison to baseline conditions

Source: Fehr & Peers, *Transportation Analysis Updates in Lancaster*, May 27, 2020.

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (refer to Impact Statement TRA-1);

b) Conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b) (refer to Impact Statement TRA-2);

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (refer to Impact Statement TRA-3); and/or

d) Result in inadequate emergency access (refer to Impact Statement TRA-4).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.8.4 IMPACTS AND MITIGATION MEASURES

CONSISTENCY WITH TRANSPORTATION PROGRAMS

TRA-1 PROJECT IMPLEMENTATION COULD CONFLICT WITH A PROGRAM PLAN, ORDINANCE, OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES.

Impact Analysis: The proposed VMT Mitigation Program aims to establish mitigation for projects that exceed the City's VMT thresholds in the form of a mitigation impact fee. The program identifies relevant TDM strategies and VMT-reducing projects within the City to be funded by the impact fee. These TDM strategies and VMT-reducing projects were identified in the following existing City planning documents as unfunded, planned infrastructure improvement projects that could contribute towards reducing Citywide VMT:

- *Master Plan of Complete Streets* (June 26, 2018);
- *Lancaster TOD Zones* (adopted February 10, 2015, updated January 2020);
- *Safer Streets Action Plan* (January 2020);
- *Safe Routes to School Master Plan* (November 2016); and
- *Master Plan of Trails and Bikeways* (March 2012).

Table 3-1, *Potential VMT-Reducing Improvements*, provides a summary of VMT-reducing infrastructure improvements that could be funded and implemented with the support of the VMT Mitigation Program. Potential improvements include bus bulb-outs, crosswalks, pedestrian refuge islands, neighborhood traffic circles, two-way bicycle tracks, widened sidewalks, and multi-purpose paths. As such, the proposed program would help implement many of the City's planned infrastructure improvement projects that have yet to be funded. Thus, the proposed program would be consistent with adopted transportation-related plans and programs and help fund existing planned and unfunded infrastructure improvement projects.

Overall, the proposed program would fund improvements to roadway, pedestrian, bicycle, and transit facilities in the City, and would not conflict with adopted policies, plans, or programs supporting alternative transportation. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

VEHICLE MILES TRAVELED

TRA-2 PROJECT IMPLEMENTATION COULD CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B).

Impact Analysis: As stated, the nature of the proposed VMT Mitigation Program is to support reductions in Citywide VMT. If a future development project screens out of VMT analysis or is located in a VMT efficient zone, the impact fee would not be applicable. VMT efficient zones are areas of the City where the VMT is already 15 percent or more below the adopted thresholds for the type of use (e.g., residential). Therefore, the program incentivizes future development to occur within VMT efficient zones of Lancaster.

However, should future projects be developed in areas outside of the City's VMT efficient zones and result in potentially significant VMT impacts (i.e., project VMT is greater than 85 percent of the established threshold), the project would be required to pay the mitigation impact fee. Payment of the impact fee is intended to serve as mitigation for future development projects that exceed the City's established VMT threshold. However, while the proposed program would fund and help implement TDM measures and VMT-reducing projects within the City at a program level, potentially significant VMT impacts could still occur on a project-level. For example, a future development project outside of the City's VMT efficient zones could pay the required impact fee, but their required fee may not fund the full cost of what is necessary to construct/complete an identified infrastructure improvement project. Therefore, it cannot be determined with certainty whether improvements would be implemented at the time a future development project's VMT impacts occur (e.g., at project opening), and whether those impacts would be mitigated to a less than significant level. Additionally, the impact fee would only apply to VMT generated above the City's established VMT threshold and thus, would not be able to fully fund all the identified TDM improvements. Given the speculative timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements, no feasible mitigation is available at this time to reduce impacts to less than significant levels. As such, impacts in this regard would be significant and unavoidable.

Mitigation Measures: No feasible mitigation measures are available.

Level of Significance: Significant and Unavoidable Impact.

HAZARDOUS DESIGN FEATURES

TRA-3 PROJECT IMPLEMENTATION COULD SUBSTANTIALLY INCREASE HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE (E.G., SHARP CURVES OR DANGEROUS INTERSECTIONS) OR INCOMPATIBLE USES (E.G., FARM EQUIPMENT).

Impact Analysis: The program does not propose any specific changes to roadways. However, transportation improvements would be funded and eventually implemented as a result of the program.

Nevertheless, future funded VMT-reducing transportation improvements would undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project- and site-specific impacts with regards to increasing hazards due to a geometric design feature or incompatible uses. Additionally, future roadway improvements would be required to comply with existing City standards related to street improvements. Specifically, Municipal Code Chapter 12.12, *Streets, Curbs and Sidewalks*, requires street improvements (e.g., curbs, gutters, sidewalks, streetlights, and paving) installed along the frontage of any lots or parcels improved with new or expanded structure to conform to the City's Development Services Department's standards and specifications. In addition, the project is anticipated to result in beneficial impacts in this regard, as a range of the identified future improvements (crosswalks, pedestrian refuge islands, neighborhood traffic circles, widened sidewalks, and multi-purpose paths) would improve safety for alternate modes of transportation. Thus, future improvements funded and implemented in accordance with the proposed program would result in less than significant impacts.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

EMERGENCY ACCESS

TRA-4 PROJECT IMPLEMENTATION COULD RESULT IN INADEQUATE EMERGENCY ACCESS.

Impact Analysis: Future infrastructure improvements implemented in accordance with the proposed program would be required to comply with all applicable City codes and policies related to emergency access, including the California Fire Code and Municipal Code Title 15, *Buildings and Construction*. Future improvement projects would also be required to undergo separate environmental review to evaluate project-level impacts with regards to emergency access. Thus, the proposed program's impacts related to emergency access would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.8.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

- **THE PROPOSED PROJECT, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD CONFLICT WITH A PROGRAM, PLAN, ORDINANCE, OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE AND PEDESTRIAN FACILITIES.**

Impact Analysis: As stated, the proposed project would fund TDM measures and VMT-reducing projects identified in existing City planning documents related to transportation. Thus, the project would help improve roadway, pedestrian, bicycle, and transit facilities within the City. The project would be consistent with existing transportation programs and plans and result in less than significant impacts. Thus, the project's contribution towards cumulative impacts in conjunction with development associated with the General Plan buildout are not cumulatively considerable. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

- **THE PROPOSED PROJECT, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B).**

Impact Analysis: The proposed program's intent is to reduce Citywide VMT by establishing a mitigation impact fee and funding TDM measures and VMT-reducing projects. However, as stated above, it cannot be determined with certainty whether the identified transportation improvements would be implemented at the time a future project's VMT impacts occur, and whether those impacts would be mitigated to a less than significant level. Additionally, the impact fee would only apply to VMT generated above the established threshold and thus, would not be able to fully fund all the identified improvements. As such, VMT impacts associated with the proposed program would be significant and unavoidable. Given that, the project could also cumulatively contribute towards significant impacts when considered in conjunction with impacts associated with buildout of the General Plan. No feasible mitigation is available given the speculative timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements. Thus, cumulative impacts in this regard would remain significant and unavoidable.

Mitigation Measures: No feasible mitigation measures are available.

Level of Significance: Significant and Unavoidable Impact.

- **THE PROPOSED PROJECT, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD SUBSTANTIALLY INCREASE HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE (E.G., SHARP CURVES OR DANGEROUS INTERSECTIONS) OR INTRODUCE INCOMPATIBLE USES (E.G., FARM EQUIPMENT).**

Impact Analysis: Similar to future roadway improvements funded by the program, future cumulative projects developed in accordance with the General Plan would be required to comply with existing City standards related to street improvements, including Municipal Code Chapter 12.12, *Streets, Curbs and Sidewalks*. Future cumulative projects would also be required to undergo separate environmental review to evaluate project-specific impacts.

As analyzed above, future roadway improvement projects funded by the program would be required to comply with existing City standards related to street improvements and thus, would result in less than significant impacts. In addition, the project is anticipated to result in beneficial impacts in this regard, as a range of the identified future improvements (crosswalks, pedestrian refuge islands, neighborhood traffic circles, widened sidewalks, and multi-purpose paths) would improve safety for alternate modes of transportation. Therefore, the project would not contribute towards cumulatively considerable impacts with regards to increasing hazards due to geometric design features or introducing incompatible uses. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

- **THE PROPOSED PROJECT, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD RESULT IN INADEQUATE EMERGENCY ACCESS.**

Impact Analysis: Similar to future roadway improvements funded by the program, cumulative projects developed in accordance with the General Plan would be required to comply with existing codes and standards, including the California Fire Code and Municipal Code Title 15, *Buildings and Construction*. Future cumulative projects would also be required to undergo separate environmental review to evaluate project-specific impacts.

As analyzed above, future infrastructure improvements funded by the program would not result in inadequate emergency access given that the improvements are intended to provide enhanced and safer multimodal amenities within the City. Additionally, all improvements would be required to comply with existing codes and standards and thus, would result in less than significant impacts. Therefore, the project would not contribute towards cumulatively considerable impacts with regards to emergency access. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than Significant Impact.

5.8.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Project implementation would result in significant and unavoidable transportation impacts related to VMT.

- *VMT Impacts*. While the proposed program would fund and help implement TDM measures and VMT-reducing projects within the City at a program level, potentially significant VMT impacts could still occur. A future development project outside of the City's VMT efficient zones could pay the required impact fee, but their required fee may not fund the full cost of what is necessary to construct/complete an identified infrastructure improvement project. Therefore, it cannot be determined with certainty whether improvements would be implemented at the time a future project's VMT impacts occur (e.g., at project opening), and whether those impacts would be mitigated to a less than significant level. Additionally, the impact fee would only apply to VMT generated above the established threshold and thus, would not be able to fully fund all the identified improvements. Given the speculative timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements, no feasible mitigation is available at this time to reduce impacts to less than significant levels. As such, impacts in this regard would be significant and unavoidable.

- *Cumulative VMT Impacts*. The project would contribute towards cumulatively considerable significant VMT impacts when considered in conjunction with impacts associated with buildout of the General Plan. As stated, no feasible mitigation is available given the speculative timing of when the TDM measures and VMT-reducing transportation improvements would be implemented and the fact that the mitigation program cannot fully fund all identified improvements. Therefore, cumulative impacts in this regard would similarly be significant and unavoidable.

5.9 Air Quality

5.9 AIR QUALITY

This section addresses the potential air emissions generated by construction and operational activities as a result of implementation of the proposed project and associated impacts to air quality. The analysis also addresses the consistency of the proposed project with the air quality policies set forth within the Antelope Valley Air Quality Management District's (AVAQMD) *Air Quality Management Plan* (AQMP). The analysis of project-generated air emissions focuses on whether the proposed project would cause an exceedance of an ambient air quality standard or AVAQMD significance thresholds.

5.9.1 EXISTING SETTING

MOJAVE DESERT AIR BASIN

Geography

The State of California is divided geographically into 15 air basins. The City is located in the Mojave Desert Air Basin (MDAB). The MDAB includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The MDAB primarily contains pollutants from other air basins, dust raised by construction, travel on unpaved roads, and paved roads with silty debris.

Air quality in the MDAB is a function of the area's natural physical characteristics (weather and topography) as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the MDAB.

Climate

The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semiarid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The average annual temperature varies little throughout the MDAB, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the MDAB show greater variability in annual minimum and maximum temperatures. All portions of the MDAB have recorded temperatures over 100°F in recent years.

The AVAQMD covers a western portion of the MDAB. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the

north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevada Mountains in the north by the Tehachapi Pass (3,800 feet elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 feet).

During the summer, the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time the reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperatures over 100.4° F.[1]

The City experiences average high temperatures of up to 98°F during the month of July and August, and average low temperatures of 30°F during the month of December. The annual average precipitation in the City is 7.38 inches. Rainfall occurs most frequently in February with an average rainfall of 1.78 inches.[2]

LOCAL AMBIENT AIR QUALITY

California Air Resources Board (CARB) monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The closest monitoring station to the City is the Lancaster – Division Street Monitoring Station. The air pollutants measured at Lancaster – Division Street Monitoring Station include ozone (O_3), carbon monoxide (CO), particulate matter (PM_{10}), nitrogen oxide (NO_2), and fine particulates ($PM_{2.5}$). The air quality data monitored at the Lancaster – Division Street Monitoring Station from 2018 to 2020 are presented in Table 5.9-1, *Measured Air Quality Levels*.

[1] Antelope Valley Air Quality Management District, *California Environmental Quality Act and Federal Conformity Guidelines*, August 2016.

[2] U.S. Climate Data, *City of Lancaster, California*, https://www.usclimatedata.com/climate/lancaster/california/%20united-states/usca0591, accessed October 13, 2021.

Table 5.9-1
Measured Air Quality Levels

Pollutant	Primary Standard		Year	Maximum Concentration[1]	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO)[2] (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2018 2019 2020	1.208 ppm 1.388 ppm 1.617 ppm	0 / 0 0 / 0 0 / 0
Ozone (O_3)[2] (1-Hour)	0.09 ppm for 1 hour	N/A	2018 2019 2020	0.125 ppm 0.096 ppm 0.099 ppm	5 / 1 1 / 0 4 / 0
Ozone (O_3)[2] (8-Hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2018 2019 2020	0.105 ppm 0.082 ppm 0.084 ppm	49 / 48 14 / 13 8 / 8
Nitrogen Dioxide (NO_x)[2]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2018 2019 2020	0.047 ppm 0.049 ppm 0.051 ppm	0 / 0 0 / 0 0 / 0
Particulate Matter (PM_{10})[2,3,4]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours	2018 2019 2020	89.3 µg/m^3 165.1 µg/m^3 192.3 µg/m^3	1 / 0 1 / 0 0 / 0
Fine Particulate Matter ($PM_{2.5}$)[2,4]	No Separate State Standard	35 µg/m^3 for 24 hours	2018 2019 2020	40.4 µg/m^3 13.6 µg/m^3 74.7 µg/m^3	* / 1 * / 0 * / 9

ppm = parts per million
µg/m^3 = micrograms per cubic meter
* = Data Not Provided
PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less
N/A = Not Applicable

Notes:
1. Maximum concentration is measured over the same period as the California Standard.
2. Measurements taken at the Lancaster – Division Street Monitoring Station located at 43301 Division St, Lancaster CA 93535.
3. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
4. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Sources: California Air Resources Board, i*ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed on October 4, 2021. California Air Resources Board, *AQMIS Air Quality and Meteorological Information's Systems*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed on October 4, 2021.

Criteria Air Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O_3 layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3 and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection

Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the MDAB as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. Currently, the MDAB remains in nonattainment as the EPA has not determined that California has met the Federal Clean Air Act requirements for redesignating the MDAB nonattainment area to attainment.

Sulfur Dioxide (SO_2). Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and reactive organic gases (ROG) (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC are often used interchangeably.

Toxic Air Contaminants (TACs). Toxic Air Contaminants (TACs) (also referred to as hazardous air pollutants [HAPs]), are pollutants that result in an increase in mortality, a serious illness, or pose a present or potential hazard to human health. Health effects of TACs may include cancer, birth defects, and immune system and neurological damage.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Noncarcinogenic

TACs differ in that there is a safe level in which it is generally assumed that no negative health impacts would occur. These levels are determined on a pollutant-by-pollutant basis.

TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, the EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT or BACT) to limit emissions.

Airborne Fungus

Coccidioidomycosis, more commonly known as "Valley Fever," is primarily a disease of the lungs caused by the spores of the *Coccidioides immitis* fungus. The spores are found in soils, become airborne when the soil is disturbed, and are subsequently inhaled into the lungs. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Valley Fever symptoms occur within two to three weeks of exposure. Approximately 60 percent of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms include fatigue, cough, loss of appetite, rash, headache, and joint aches. In some cases, painful red bumps may develop on the skin. One important fact to mention is that these symptoms are not unique to Valley Fever and may be caused by other illnesses as well. Identifying and confirming this disease require specific laboratory tests such as: (1) microscopic identification of the fungal spherules in infected tissue, sputum, or body fluid sample; (2) growing a culture of *Coccidioides immitis* from a tissue specimen, sputum, or body fluid; (3) detection of antibodies (serological tests specifically for Valley Fever) against the fungus in blood serum or other body fluids; and (4) administering the Valley Fever Skin Test (called coccidioidin or spherulin), which indicate prior exposure to the fungus.

Valley Fever is not contagious, and therefore, cannot be passed on from person to person. Most of those who are infected would recover without treatment within six months and would have a life-long immunity to the fungal spores. In severe cases, especially in those patients with rapid and extensive primary illness, those who are at risk for dissemination of disease, and those who have disseminated disease, antifungal drug therapy is used. The type of medication used, and the duration of drug therapy are determined by the severity of disease and response to the therapy. The medications used include ketoconazole, itraconazole and fluconazole in chronic, mild-to-moderate disease, and amphotericin B, given intravenously or inserted into the spinal fluid, for rapidly progressive disease. Although these treatments are often helpful, evidence of disease may persist, and years of treatment may be required.

The usual course of Valley Fever in healthy people is complete recovery within six months. In most cases, the body's immune response is effective, and no specific course of treatment is necessary. About five percent of cases of Valley Fever result in pneumonia (infection of the lungs), while another five percent of patients develop lung cavities after their initial infection with Valley Fever. These cavities occur most often in older adults, usually without symptoms, and about 50 percent of them disappear within two years. Occasionally, these cavities rupture, causing chest pain and difficulty breathing, and

require surgical repair. Only one to two percent of those exposed who seek medical attention would develop a disease that disseminates (spreads) to other parts of the body other than the lungs.

Factors that affect the susceptibility to coccidioidal dissemination are race, sex, pregnancy, age, and immunosuppression. While there are no racial or gender differences in susceptibility to primary infection with coccidioidomycosis, differences in risk of disseminated infection do appear to exist. Men have a higher rate of dissemination than do women and several studies have shown that the rate of dissemination in African Americans and Filipinos is several times higher than in the rest of the U.S. population. Native Americans, Hispanics, and Asians may also have a higher rate of dissemination than the general population, but these population differences are not well defined.

The *Coccidioides immitis* fungal spores are often found in the soil around rodent burrows, Indian ruins, and burial grounds. The spores become airborne when the soil is disturbed by winds, construction, farming, and soil disturbing activities. This type of fungus is endemic to the southwestern United States and is common in the Antelope Valley. The City is located in an area designated as suspected endemic for Valley Fever by the Center for Disease Control and Prevention (CDC).[3] Annual morbidity reports for 2011 through 2016 from Los Angeles County Public Health (LACPH) indicate that the Los Angeles County has the reported case rate that are approximately 30 per 100,000 population.[4]

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks. The City currently has numerous sensitive land uses. These land uses will continue to exist, while new sensitive land uses would not occur as a result of the implementation of the project.

5.9.2 REGULATORY SETTING

FEDERAL LEVEL

U.S. Environmental Protection Agency

The EPA is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established Federal air quality standards

[3] Centers for Disease Control and Prevention, *Sources of Valley Fever (Coccidioidomycosis)*, https://www.cdc.gov/fungal/diseases/coccidioidomycosis/maps.html, accessed October 6, 2021.

[4] Los Angeles County Department of Public Health, *Acute Communicable Disease Control 2016 Annual Morbidity Report*, http://publichealth.lacounty.gov/acd/docs/2011to2016.pdf, accessed October 8, 2021.

known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 5.9-2 *National and California Ambient Air Quality Standards*.

STATE LEVEL

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 5.9-2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an AQMP to achieve compliance with CAAQS. These AQMP's also serve as the basis for the preparation of the State Implementation Plan for the State of California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment.

Air Toxics Programs

Toxic air contaminants are another group of pollutants of concern in southern California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Table 5.9-2
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[3,4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m³)	**Nonattainment**	N/A	N/A[5]
	8 Hours	0.070 ppm (137 µg/m³)	**Nonattainment**	0.070 ppm (137 µg/m³)	**Nonattainment/Severe**
Particulate Matter (PM_{10})	24 Hours	50 µg/m³	**Nonattainment**	150 µg/m³	**Maintenance/Serious**
	Annual Arithmetic Mean	20 µg/m³	**Nonattainment**	N/A	**Maintenance/Serious**
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 µg/m³	Unclassified/Attainment
	Annual Arithmetic Mean	12 µg/m³	Attainment/Unclassified	12 µg/m³	Unclassified/Attainment
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Unclassified/Attainment
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Unclassified/Attainment
Nitrogen Dioxide (NO_2)[5]	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	N/A	53 ppb (100 µg/m³)	Unclassified/Attainment
	1 Hour	0.18 ppm (339 µg/m³)	Attainment	100 ppb (188 µg/m³)	Unclassified/Attainment
Lead (Pb)[7,8]	30 days Average	1.5 µg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m³	Unclassified/Attainment
	Rolling 3-Month Average	N/A	N/A	0.15 µg/m³	Unclassified/Attainment
Sulfur Dioxide (SO_2)[6]	24 Hours	0.04 ppm (105 µg/m³)	Attainment	0.14 ppm (for certain areas)	Unclassified/Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 µg/m³)	Attainment	75 ppb (196 µg/m³)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/Attainment
Visibility-Reducing Particles[9]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Unclassified		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m³)	Unclassified		

Table 5.9-2 [cont'd]
National and California Ambient Air Quality Standards

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
6. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
7. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
9. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air MDAB standards, respectively.

Source: Antelope Valley Air Quality Management District, *Antelope Valley AQMD Attainment Status,* https://avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf, 2017. California Air Resources Board, *Ambient Air Quality Standards*, https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf, May 2016

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (Health and Safety Code Section 39660 et seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. The program is administered by CARB. Air quality control

agencies, including the AVAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

REGIONAL LEVEL

Southern California Association of Governments

On September 3, 2020, the Regional Council of SCAG formally adopted the *Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing greenhouse gases (GHGs) from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita VMT. Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

LOCAL LEVEL

Antelope Valley Air Quality Management District

Air districts have the primary responsibility to control air pollution from all sources other than those directly emitted from motor vehicles, which are the responsibility of the CARB and the EPA. Air districts adopt and enforce rules and regulations to achieve State and Federal ambient air quality standards and enforce applicable State and Federal law.

The AVAQMD adopted the *2017 Federal 75ppb Ozone Attainment Plan* (2017 Attainment Plan) on March 21, 2017. The document sets forth a comprehensive program that would lead the area into compliance with Federal and State air quality standards. The 2017 Attainment Plan includes the latest planning assumptions regarding population, vehicle, and industrial activity and addresses all existing and forecasted ozone precursor-producing activities within the Antelope Valley through the year 2026.

In August 2016, the AVAQMD adopted the *California Environmental Quality Act and Federal Conformity Guidelines* (CEQA and Federal Conformity Guidelines) to provide direction on the preferred analysis approach in preparing environmental analysis or document review. The guidelines characterize the topography and climate of the MDAB, defines cumulative impacts, and provide emission thresholds

for construction and operation. The CEQA and Federal Conformity Guidelines establish significance thresholds for projects. Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The evaluation criteria are: (1) generates total emissions (direct and indirect) in excess of the thresholds given in Table 5.9-3, *Antelope Valley Air Quality Management District Emissions Thresholds*; (2) generates a violation of any ambient air quality standard when added to the local background; (3) does not conform with the applicable attainment or maintenance plan(s); and (4) exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1. This air quality analysis is based on these four criteria.

Table 5.9-3
Antelope Valley Air Quality Management District Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons/year)	Daily Thresholds (pounds/day)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOCs)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	15	65

Source: Antelope Valley Air Quality Management District, *California Environmental Quality Act and Federal Conformity Guidelines*, August 2016.

City of Lancaster General Plan 2030

The General Plan was adopted on July 14, 2009, and the horizon year for the adopted General Plan is 2030. The General Plan contains the vision, goals, objectives, policies, and specific actions for the City. The General Plan includes the following elements or plans: natural environment, public health and safety, active living, physical mobility, municipal services and facilities, economic development and vitality and physical development. The following objectives and policies related to air quality in the Plan for the Natural Environment Chapter of the General Plan would be applicable to the project:

Objective 3.3: Preserve acceptable air quality by striving to attain and maintain national, State and local air quality standards.

Policy 3.3.1: Minimize the amount of vehicular miles traveled.

Policy 3.3.2: Facilitate the development and use of public transportation and travel modes such as bicycle riding and walking.

Policy 3.3.3: Minimize air pollutant emissions generated by new and existing development.

Policy 3.3.4: Protect sensitive uses such as homes, schools and medical facilities, from the impacts of air pollution.

Policy 3.3.5: Cooperate with AVAQMD and other agencies to protect air quality in the Antelope Valley.

Objective 14.2: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.

Policy 14.2.1: Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the study area.

Lancaster Municipal Code

Chapter 12.10, Mobile Source Air Pollution Reduction

Lancaster Municipal Code (Municipal Code) Chapter 12.10, *Mobile Source Air Pollution Reduction*, supports the AVAQMD's imposition of the vehicle registration fee and to bring the City into compliance with the requirements set forth in Section 44243 of the Health and Safety Code in order to receive fee revenues for the purpose of implementing programs to reduce air pollution from motor vehicles.

5.9.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

REGIONAL AIR QUALITY

AVAQMD Thresholds

Under CEQA, the AVAQMD is a responsible agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, the AVAQMD has adopted attainment plans for O_3. The AVAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan. The AVAQMD has adopted an attainment plan for ozone pursuant to the FCAA.

For the purposes of this air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors, and outdoor and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the CARB or criteria developed by the AVAQMD, including thresholds for criteria pollutants, are considered significant impacts.

AVAQMD's CEQA and Federal Conformity Guidelines also provides significance thresholds to assess the impact of project related air pollutant emissions. Table 5.9-3 provides the significance thresholds set forth by the AVAQMD. A project that generates total emissions (direct and indirect) in excess of the thresholds given in Table 5.9-3 is considered significant.

Conformity Impacts

According to AVAQMD's CEQA and Federal Conformity Guidelines, a project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plans. A project is conforming if it complies with all applicable AVAQMD rules and regulations, complies with all proposed control measures that are not adopted from applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast (i.e., General Plan).

CEQA SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Environmental Checklist Form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-4);

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (refer to Impact Statements AQ-1 and AQ-2);

c) Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-3); and

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact Statement AQ-5).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.9.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

AQ-1 SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD.

Impact Analysis: The intent of the proposed project is to streamline the SB 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT. Future transportation improvements may include crosswalks, pedestrian refuge islands, roundabouts, widened sidewalks, additional bicycle lanes, and multi-purpose paths, among others; refer to Table 3-1, *Potential VMT-Reducing Improvements*.

The thresholds of significance recommended by the AVAQMD for construction emissions were developed for individual development projects. Construction-related emissions are described as short-term or temporary in duration and have the potential to represent a significant impact with respect to air quality. The improvements would likely be small-scale transportation improvement projects in the City. The future construction-related activities associated with buildout of the proposed project within the City would result in emissions of criteria air pollutants and precursors from site preparation (e.g., excavation, grading, and clearing); exhaust from off-road equipment, material delivery trucks, and worker commute vehicles; vehicle travel on roads; and other miscellaneous activities (e.g., asphalt paving).

As a VMT mitigation program, the project provides a broad range of VMT-reducing transportation improvements that could be funded through the program. The pace of development within the City, ratio of development within and outside of VMT efficient zones, and timing for development of VMT-reducing improvements cannot be determined at this time. Therefore, construction-related emissions associated with future transportation improvements that may occur at any one time are speculative and cannot be accurately determined at this stage of the planning process. The construction activities would occur throughout the City as funding becomes available. Although the rate of improvement projects cannot be predicted, each individual improvement project would be small-scale with a limited construction duration, and is not anticipated such improvements would have the capacity to exceed AVAQMD construction threshold. Furthermore, all future individual VMT-reducing improvement projects within the City, including those implemented as part of development projects, would require separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) and be analyzed at a project-specific level. Future improvements would be reviewed by the City to ensure that the improvements occur in a logical manner consistent with the General Plan and Municipal Code. Further, future development projects would be required to comply with all applicable AVAQMD rules and regulations as well as other control measures to reduce construction emissions; refer to Mitigation Measures AQ-1 and AQ-2. Specifically, Mitigation Measure AQ-1 would require future projects within the City to utilize construction equipment vehicles in proper condition and in tune per manufacturer's

specifications to ensure ozone precursor emissions are reduced. Additionally, Mitigation Measure AQ-2 would require a Construction Management Plan and Traffic Control Plan be prepared and implemented to reduce traffic congestion during future temporary construction activities, thus reducing construction-related air quality emissions. Compliance with existing AVAQMD regulations and Mitigation Measures AQ-1 and AQ-2 would ensure impacts in this regard are reduced to less than significant levels.

Mitigation Measures:

AQ-1 Prior to issuance of any grading permit for a transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt under CEQA), the City of Lancaster Development Services Department, Community Development Division shall confirm that the Grading Plan, Construction Plans, and specifications require that ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications.

AQ-2 Each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt under CEQA) shall submit a Construction Management Plan to the City Engineer prior to the issuance of a grading permit. To reduce traffic congestion during temporary construction activities, a Traffic Control Plan shall include the following, as deemed necessary by the City Traffic Engineer: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off-peak hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow. Traffic control devices included in the traffic control plan shall be developed in compliance with the requirements of the most current standards. The Construction Management Plan shall also include construction phasing, personnel parking, and material storage areas to reduce traffic congestion.

Level of Significance: Less Than Significant Impact with Mitigation Incorporated.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

AQ-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.

Impact Analysis: Implementation of the project would not directly generate operational emissions as the transportation improvements funded by the proposed program would cause a net decrease in Citywide VMT and associated mobile source operational emissions. In alignment with SB 743, the

project would allow implementation of TDM strategies and VMT-reducing improvements that contribute towards reducing Citywide VMT, resulting in beneficial operational air quality impacts. Additionally, the proposed program itself would not involve any building construction or land uses that may generate stationary or mobile source emissions. As such, there would be no impact with regards to operational emissions.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors VOCs and NO_x affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

The issue of correlating regional air pollution to human health effects was raised in litigation regarding the Friant Ranch project, which is a 942-acre master-planned community in Fresno County. In 2011, litigation was filed by the Sierra Club and other groups challenging the adequacy of Fresno County's EIR for failing to comply with CEQA. The Superior Court upheld all aspects of the EIR, but an appeal then followed, ultimately reversing the decision as it held that the EIR was deficient in its informational discussion of air quality impacts as they connect to adverse human health effects. In the appeal process the South Coast Air Quality Management District (SCAQMD) and San Joaquin Valley Air Pollution Control District (SJVAPCD) took the lead on behalf of air quality regulating agencies to file amicus briefs to identify the infeasibility of conducting this type of analysis using the tools that are currently available.

As noted in the Brief of Amicus Curiae by the SCAQMD,[5] the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the SJVAPCD,[6] SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

[5] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

[6] San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. As such, since implementation of the potential transportation improvements would cause a decrease in Citywide VMT and associated mobile emissions, the project would have no significant impact for air quality health impacts.

Mitigation Measures: No mitigation measures are required.

Level of Significance: No Impact.

LOCALIZED EMISSIONS

AQ-3 DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN LOCALIZED EMISSIONS IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Impact Analysis:

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The MDAB is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[7] CO emissions have continued to decline since this time. The MDAB was re-designated as attainment and is no longer addressed in the AVAQMD's AQMP. Three major control programs have contributed to the reduced per-vehicle CO

[7] United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed by October 18, 2021.

emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

Localized concentrations of CO are typically associated with the idling of vehicles, particularly in highly congested areas. For this reason, the areas of primary concern are congested roadway intersections that experience high levels of vehicle traffic with degraded levels of service (LOS). With regard to potential increases in CO concentrations that could potentially exceed applicable ambient air quality standards, signalized intersections that are projected to operate at an unacceptable LOS E or F are of particular concern. As the potential transportation improvements implemented in accordance with the proposed program would reduce Citywide VMT and encourage multimodal transportation throughout the City, there would be less congestion within the City as a result of the project implementation, leading to a reduction in CO hotspot impacts. Furthermore, the highest hourly recorded CO value at the Lancaster – Division Street Monitoring Station between 2018 and 2020 was 1.617 ppm, which is well below the 35-ppm 1-hour CO Federal Standard. Therefore, no impacts would occur in this regard.

Toxic Air Contaminants

As noted above, implementation of the project would not result in long-term operation of any stationary sources of TACs and would have a decrease in mobile source emissions as the project would cause a decrease in Citywide VMT. However, construction of the various potential transportation improvements may result in temporary increases in emissions of diesel particulate matter (DPM) associated with the use of off-road diesel equipment. Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. As such, the calculation of cancer risk associated with exposure of to TACs are typically calculated based on a long-term (e.g., 70- year) period of exposure. The use of diesel-powered construction equipment, however, would be temporary and episodic and would occur over a relatively large area. For these reasons, exposure to construction-generated DPM would not be anticipated to exceed applicable thresholds (i.e., incremental increase in cancer risk of 10 in one million). As such, impacts from toxic air contaminants would less than significant in this regard.

Valley Fever

Nearby sensitive receptors as well as workers could be exposed to Valley Fever from fugitive dust generated during construction. There is the potential that Coccidioides spores would be stirred up during excavation, grading, and earth-moving activities, exposing construction workers and nearby sensitive receptors to these spores and thereby, to the potential of contracting Valley Fever. However, future transportation improvements implemented in accordance with the proposed project would be required to comply with AVAQMD Rules 401 and 403 emissions during construction and implement Mitigation Measure AQ-3 that would provide personal protective respiratory equipment to construction workers and provide information to all construction personnel and visitors about Valley Fever. As such, the risk of exposure to Valley Fever would be minimized to a less than significant level. With the implementation of Mitigation Measure AQ-3, dust from construction of the proposed project would be limited and would not expose nearby sensitive receptors to the Valley Fever fungus. Impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measures AQ-1, AQ-2, and:

AQ-3 Prior to ground disturbance activities associated with the VMT-reducing improvements funded by the proposed program, the project operator shall provide evidence to the Director of Community Development that the project operator and/or construction manager has developed a "Valley Fever Training Handout" training and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s), and schedule shall be submitted to the Director of Community Development within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Director of Community Development regarding the "Valley Fever Training Handout" and session(s) shall include the following:

- A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.
- Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.
- Training on methods that may help prevent Valley Fever infection.
- A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Where respirators are required, the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the Director of Community Development. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

The project operator also shall consult with the Los Angeles County Public Health to develop a Valley Fever Dust Management Plan (Plan) that addresses the potential presence of the Coccidioides spore and mitigates for the potential for Coccidioidomycosis (Valley Fever). Prior to issuance of permits, the project operator shall submit the Plan to the Los Angeles County Public Health for review and approval. The Plan shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate safety procedures that shall be implemented, as needed, to minimize personnel and public exposure to potential Coccidioides spores. Measures in the Plan shall include the following:

- Provide High Efficiency Particulate (HEP)-filters for heavy equipment equipped with factory enclosed cabs capable of accepting the filters. Require contractors utilizing applicable heavy equipment to furnish proof of worker training on proper

use of applicable heavy equipment cabs (e.g., turning on the air conditioning prior to using the equipment).

- Provide communication methods, such as two-way radios, for use in enclosed cabs.

- Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with minimum N-95 protection factor for use during worker collocation with surface disturbance activities, as required per the hazard assessment process.

- Require employees to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144).

- Provide separate, clean eating areas with hand-washing facilities.

- Install equipment inspection stations at each construction equipment access/egress point. Examine construction vehicles and equipment for excess soil material and clean, as necessary, before equipment is moved off-site.

- Train workers to recognize the symptoms of Valley Fever, and to promptly report suspected symptoms of work-related Valley Fever to a supervisor.

- Work with a medical professional to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever.

- Work with a medical professional, in consultation with the Los Angeles County Public Health, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site and include the following information on Valley Fever: what are the potential sources/causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure is available. Prior to construction permit issuance, this handout shall have been created by the project operator and reviewed by the project operator and reviewed by the Director of Community Development. No less than 30 days prior to any work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.

- When possible, position workers upwind or crosswind when digging a trench or performing other soil-disturbing tasks.

- Prohibit smoking at the worksite outside of designated smoking areas; designated smoking areas shall be equipped with handwashing facilities.

- Post warnings on-site and consider limiting access to visitors, especially those without adequate training and respiratory protection.

- Audit and enforce compliance with relevant Cal/OSHA health and safety standards on the job site.

Level of Significance: Less Than Significant Impact with Mitigation Incorporated.

CONSISTENCY WITH REGIONAL PLANS

AQ-4 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

Impact Analysis: A potentially significant impact to air quality would occur if the project would conflict with or obstruct implementation of the applicable Air Quality Plan. Therefore, it is necessary to assess the project's consistency with the 2017 Attainment Plan as well as the General Plan and growth forecasts. The purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus, if it would interfere with the region's ability to comply with Federal and State air quality standards. It is important to note that even if a project is found consistent it could still have a significant impact on air quality under CEQA. Consistency with plans means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the Federal and State air quality standards.

The AVAQMD CEQA and Federal Conformity Guidelines notes the following with respect to conformity impacts:

> *According to AVAQMD CEQA and Federal Conformity Guidelines a project is consistent with applicable air quality plans if it complies with all applicable AVAQMD rules and regulations, complies with all proposed control measures that are not adopted from applicable plans, and is consistent with the growth forecasts in the applicable plan(s). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.*

The project would be consistent with the General Plan as it would preserve acceptable air quality and promote a roadway systems network that is sensitive to environmental issues, such as air quality; refer to Table 5.9-4, *General Plan Consistency*. The project would not affect SCAG's nor the 2017 Attainment Plan's buildout projections for the City as the project would not involve any developments that would introduce population or employment to the City. As such, the proposed project would not exceed the housing and population growth forecasts for the City. Further, as discussed above, the project's short-term construction and long-term operational emissions impacts would be less than significant and further reduced with implementation of Mitigation Measures AQ-1 through AQ-3, and the project would be required to comply with all AVAQMD rules and regulations to improve air quality. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. A less than significant impact would occur in this regard.

Table 5.9-4
General Plan Consistency

General Objectives and Policies	Project Consistency
Objectives: Preserve acceptable air quality by striving to attain and maintain national, State and local air quality standards.	
Policy 3.3.1: Minimize the amount of vehicular miles traveled. Policy 3.3.2: Facilitate the development and use of public transportation and travel modes such as bicycle riding and walking. Policy 3.3.3: Minimize air pollutant emissions generated by new and existing development. Policy 3.3.4: Protect sensitive uses such as homes, schools and medical facilities, from the impacts of air pollution. Policy 3.3.5: Cooperate with AVAQMD and other agencies to protect air quality in the Antelope Valley.	**Consistent**. The proposed fee program would fund future TDM strategies and VMT-reducing improvements within the City. The potential improvements would facilitate alternative travel modes and would reduce air pollutant emissions from mobile sources. Additionally, all future transportation improvements would be required to undergo separate environmental review under CEQA to evaluate project-specific impacts with regards to air pollutant emissions and identify any required mitigation measures. Thus, the project would protect sensitive land uses as it improves air quality. Additionally, the City would continue to cooperate with AVAQMD and other agencies to protect air quality in the region. As such, the project would be consistent with this General Plan objective.
Objectives: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.	
Policy 14.2.1: Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the study area.	**Consistent.** As discussed above, the potential VMT-reducing improvements funded by the project would include widening sidewalk, restriping roadway, and constructing median and multi-purpose path, among others. These improvements would support and improve the current roadway network and reduce Citywide VMT and associated air pollutant emissions. As such, the project would be consistent with this General Plan objective.
Source: City of Lancaster, *City of Lancaster General Plan 2030*, July 14, 2009.	

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-3.

Level of Significance: Less Than Significant Impact with Mitigation Incorporated.

AQ-5 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CREATE OBJECTIONABLE ODORS AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE.

Impact Analysis: According to the AVAQMD CEQA and Federal Conformity Guidelines, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project would not include any uses identified by the AVAQMD as being associated with odors.

The project does not propose any demolition or development activities within the City. Individual transportation improvements within the City would occur in incremental phases over time, based largely on available funding. Transportation improvements may also occur as part of development

projects (e.g., improvements along a project frontage). The phasing and exact details of each improvement would be evaluated by the City on a case-by-case basis as the funding becomes available. Construction activities associated with these improvements may generate detectable odors from heavy-duty equipment exhaust and paving. However, these construction-related odors would be analyzed on a case-by-case basis. All transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA to evaluate project-specific impacts and any required mitigation. In addition, the improvements within the City would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. Improvements within the City would also be required to comply with the AVAQMD Regulation XI, *Rule 1120 – Asphalt Pavement Heaters*, which would minimize odor impacts from ROG emissions during asphalt paving activities. Thus, odors associated with project construction would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.9.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

According to the AVAQMD CEQA and Federal Conformity Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. If a project impact is individually less than significant, the impacts of the surrounding past, present and future projects must be taken into account. The AVAQMD relies on SCAQMD guidelines to determine cumulative impacts, which states that the thresholds of significance for cumulative impacts are the same as those for the project-related impacts. Projects that exceed the project-specific significance thresholds are considered by the AVAQMD to be cumulatively considerable. The following discussions are included by topic area to determine whether a significant cumulative effect would occur.

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

- **SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS, COULD RESULT IN INCREASED AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO INCREASED POLLUTANT CONCENTRATIONS.**

Impact Analysis: The AVAQMD neither recommends quantified analyses of cumulative construction emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction impacts. The AVAQMD significance thresholds for construction are intended to meet the objectives of the AQMP to ensure the NAAQS and CAAQS are not exceeded. As the City has no control over the timing or sequencing of cumulative development in Lancaster, any quantitative analysis to ascertain the daily construction emissions that assumes multiple, concurrent construction would be speculative. In addition, construction-related criteria pollutant emissions are temporary in nature and cease following project completion.

Per AVAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the MDAB, which would include future development in accordance with the General Plan buildout. Based on the programmatic construction analysis above, construction-related emissions associated with future development projects within the City and surrounding area would be required to comply with the applicable AVAQMD rules and regulations, as well as Mitigation Measures AQ-1 through AQ-3. Therefore, the project would not result in cumulatively considerable impacts regarding construction air quality emissions.

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-3.

Level of Significance: Less Than Significant Impact with Mitigation Incorporated.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.**

Impact Analysis: As discussed above, the proposed project would not result in long-term air quality impacts, as the proposed transportation improvements would not result in any operational air emissions. Compared to existing conditions, implementation of the proposed program would result in a decrease in Citywide VMT and associated mobile source operational emissions. The project would not involve any land use development with area source emissions. Additionally, adherence to AVAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Furthermore, emission reduction technology, strategies, and plans are

constantly being developed. As a result, the proposed project would not contribute to a cumulatively considerable net increase of any nonattainment criteria pollutant. No cumulative operational impacts associated with the implementation of the proposed project would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: No Impact.

CUMULATIVE CARBON MONOXIDE HOTSPOTS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND CUMULATIVE PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE CARBON MONOXIDE HOTSPOT IMPACTS.**

Impact Analysis: Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations such as CO hotspots. Future ambient CO concentrations resulting from the project would be substantially below National and State standards, as the highest hourly recorded CO value at the Lancaster – Division Street Monitoring Station between 2018 and 2020 was 1.617 ppm, which is well below the 35-ppm 1-hour CO Federal Standard. Therefore, the project's contribution would not be cumulatively considerable as the project would cause a decrease in Citywide VMT and associated emissions within the City. Cumulative impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CUMULATIVE CONSISTENCY WITH APPLICABLE AIR QUALITY PLAN

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE INCONSISTENCIES WITH THE APPLICABLE AIR QUALITY PLAN.**

Impact Analysis: As noted above, the AVAQMD considers any project with a significant project-level air quality impact to also have a significant cumulative air quality impact. As discussed above, the proposed project would not result in any air quality violations with implementation of Mitigation Measures AQ-1 through AQ-3 during construction and operation and would not conflict with the growth forecasts for the City as the project would not involve any building development that would introduce population and employment to the City. Project impacts were determined to be less than significant with regard to consistency with regional air quality plans. Additionally, the project would be consistent with General Plan and SCAG's growth forecasts. Therefore, the proposed project would not have a cumulatively considerable impact in this regard. A less than significant impact would occur. As such, impacts associated with the project in this regard would not be cumulatively considerable. Cumulative impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-3.

Level of Significance: Less Than Significant Impact with Mitigation Incorporated.

CUMULATIVE ODOR IMPACTS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE ODOR IMPACTS.**

Impact Analysis: Odors resulting from the construction activities associated with implementation of the projects that would occur within the City are not likely to affect a substantial number of people, since construction activities occur in a limited area and do not usually emit odors that are considered offensive. As discussed above, future transportation improvements funded by the program would occur in incremental phases over time and exact details of each project would be evaluated by the City on a case-by-case basis with separate environmental review under CEQA. The individual developments would be required to analyze odors and mitigate any potential odor impacts. Thus, implementation of the project would not cumulatively result in significant or highly objectionable odor.

Further, the project would not involve development of facilities such as agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project also would not involve development of residential, industrial, and commercial uses, or restaurants. As such, there would be no odor generated during operation. The project would not involve land use developments that would have potential odor emissions during operation. As such, cumulative odor impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.9.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to air quality have been identified.

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5.10 Greenhouse Gas Emissions

5.10 GREENHOUSE GAS EMISSIONS

This section evaluates greenhouse gas (GHG) emissions impacts associated with the proposed project and analyzes project compliance with applicable regulations. Consideration of the project's consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs, is included in this section.

5.10.1 EXISTING SETTING

The City lies within the Mojave Desert Air Basin (MDAB). The MDAB includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County.

SCOPE OF ANALYSIS FOR CLIMATE CHANGE

The study area for climate change and the analysis of GHG emissions is broad as climate change is influenced by world-wide emissions and their global effects. However, the study area is also limited by the *California Environmental Quality Act Guidelines* [Section 15064(d)] (*CEQA Guidelines*), which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact which may be caused by the project.

The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities that have grown more than 70 percent between 1970 and 2004. The State of California is leading the nation in managing GHG emissions. Accordingly, the impact analysis for this project relies on guidelines, analyses, policy, and plans for reducing GHG emissions established by the California Air Resources Board (CARB).

GLOBAL CLIMATE CHANGE – GREENHOUSE GASES

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[1] The greenhouse effect traps heat in the troposphere through a threefold process as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor (H_2O) and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. GHGs normally associated with development projects include the following:[2]

- Water Vapor (H_2O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.

- Carbon Dioxide (CO_2). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, CO_2 emissions from fossil fuel combustion increased by a total of 2.6 percent between 1990 and 2019.[3] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

- Methane (CH_4). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States' top three methane sources are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, used for space and water heating, steam production, and power generation. The GWP of methane is 27.9.

- Nitrous Oxide (N_2O). Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 273.

- Hydrofluorocarbons (HFCs). Typically used as refrigerants for both stationary refrigeration and mobile air conditioning, use of HFCs for cooling and foam blowing is increasing, as the continued phase out of chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year GWP of HFCs range from 4.84 for HFC-161 to 14,600 for HFC-23.

- Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a GWP several thousand times that of CO_2, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The GWP of PFCs range from 7,380 to 12,400.

[2] All GWPs are given as 100-year GWP. Generally, GWPs were obtained from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) and Fifth Assessment Report (AR5), with the addition of GWPs from the IPCC's Sixth Assessment Report for fluorinated GHGs that did not have GWPs in the AR4 and AR5.

[3] United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2019, 2021*, https://www.epa.gov/sites/default/files/2021-04/documents/us-ghg-inventory-2021-main-text.pdf?VersionId=yu89kg1O2qP754CdR8Qmyn4RRWc5iodZ, accessed October 20, 2021.

- Sulfur hexafluoride (SF_6). SF_6 is a colorless, odorless, nontoxic, nonflammable gas. SF_6 is the most potent GHG that has been evaluated by the IPCC with a GWP of 25,200. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO_2 (4 parts per trillion in 1990 versus 365 parts per million, respectively).

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 56.4 for HCFC-122 to 2,300 for HCFC-142b.

- 1,1,1 trichloroethane (C2H3Cl3). 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 161 times that of CO_2.

- Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (EPA) Final Rule (57 Federal Register [FR] 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year GWPs ranging from 3,550 for CFC-112a to 16,200 for CFC-13.

5.10.2 REGULATORY SETTING

FEDERAL LEVEL

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. However, various efforts have been promulgated at the Federal level to improve fuel economy and energy efficiency to address climate change and its associated effects as described below.

Energy Independence and Security Act Of 2007

The Energy Independence and Security Act of 2007, among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The EPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, the George W. Bush Administration issued Executive Order 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated Federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021, and NHTSA intends to set standards for model years 2022 through 2025 in a future rulemaking. On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022 through 2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 through 2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

Presidential Executive Order 13783

Presidential Executive Order 13783, *Promoting Energy Independence and Economic Growth* (March 28, 2017), orders all Federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, N_2O, and CH_4.

STATE LEVEL

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Executive Order S-1-07

Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of Statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32. The development of the 2017 Scoping Plan Update has identified the LCFS as a regulatory measure to reduce GHG emissions to meet the 2030 emissions target. In calculating Statewide emissions and targets, the 2017 Scoping Plan Update has assumed the LCFS be extended to an 18-percent reduction in carbon intensity beyond 2020. On September 27, 2018, CARB approved a rulemaking package that amended the Low Carbon Fuel Standard to relax the 2020 carbon intensity reduction from 10 percent to 7.5 percent and to require a carbon intensity reduction of 20 percent by 2030.

Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary also submits biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08

Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of the State's first climate adaptation strategy. This Executive Order results in consistent guidance from experts on how to address climate change impacts in the State of California.

Assembly Bill 1493

AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. The near-term standards were intended to achieve a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards were intended to achieve a reduction of about 30 percent.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 32

Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

Senate Bill 100

SB 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, 60 percent by December 31, 2030, and 100 percent by December 31, 2045. The bill would require the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board, and all other State agencies to incorporate that policy into all relevant planning. In addition, SB 100 would require the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every 4 years thereafter, that includes specified information relating to the implementation of the policy.

CARB Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 "Business-as-Usual" (BAU) emissions to 1990 levels, as required by AB 32. These strategies are intended to reduce CO_2e emissions by 174 million metric tons. This reduction of 42 million metric tons carbon dioxide equivalent ($MTCO_2e$), or almost ten percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions

from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term Statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update did not establish or propose any specific post-2020 goals, but identified such goals in water, waste, natural resources, clean energy, transportation, and land use.

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was finalized in November 2017 and approved on December 14, 2017 and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan Update establishes a new Statewide emissions limit of 260 million $MTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030. The 2017 Scoping Plan Update contains the following goals:

- SB 350
  - Increase renewable electricity procurement goal from 33 percent to 50 percent by 2030;
  - Double energy efficiency savings by 2030;

- Low Carbon Fuel Standard (LCFS)
  - Increase stringency (reduce carbon intensity 18 percent by 2030, up from 10 percent in 2020);

- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
  - Maintain existing GHG standards for light- and heavy-duty vehicles;
  - Put 4.2 million zero-emission vehicles (ZEVs) on the roads;
  - Increase ZEV buses, delivery and other trucks;

- Sustainable Freight Action Plan
  - Improve freight system efficiency;
  - Maximize use of near-zero emission vehicles and equipment powered by renewable energy;
  - Deploy over 100,000 zero-emission trucks and equipment by 2030;

- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030;
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030;

- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets;

- Post-2020 Cap-and-Trade Program
  - Decline caps, continue linkage with Québec, and linkage to Ontario, Canada;
  - CARB to look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements;
  - Reduce GHG emissions in the refinery sector by 20 percent; and
  - By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375

Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 was passed by the State Assembly on August 25, 2008 and signed by the Governor on September 30, 2008. The legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions can be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Communities Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so the region can meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

REGIONAL LEVEL

Southern California Association of Governments

On September 3, 2020, the Regional Council of SCAG formally adopted the Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;

- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita VMT. Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

LOCAL LEVEL

City of Lancaster Climate Action Plan

The City of Lancaster adopted the *City of Lancaster Climate Action Plan* (CAP) in March 2017. The CAP documents the City's GHG emissions inventories and the progress the City has made through its alternative energy and sustainability programs. The CAP also identifies projects that would enhance the City's ability to further reduce GHG emissions. A focused working group made up of City staff worked to develop projects which would enhance the community, improve government operations, and ultimately reduce GHG emissions. A total of 61 projects across eight sectors were identified: traffic, energy, municipal operations, water, waste, built environment, community, and land use. Additionally, the CAP evaluates four different future scenarios, and the proposed measures were quantified for each scenario based upon the project descriptions, action items, and indicators. These scenarios assume that Lancaster Choice Energy (LCE) has varying amounts of alternative energy in their portfolio by 2050, which result in different amounts of GHG reductions. Under all scenarios, the City meets the 2020 target by a wide margin and makes substantial progress towards achieving the post-2020 reduction targets.

5.10.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Amendments to *CEQA Guidelines* Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a quantified or performance-based threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see *CEQA Guidelines* Section 15064.7(c)).

The California Natural Resources Agency (CNRA) has also clarified that the *CEQA Guidelines* amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses

(see *CEQA Guidelines* Section 15064(h)(3)).[4] A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.[5]

CONSISTENCY WITH PLANS

The project's GHG impacts are evaluated by assessing the project's consistency with applicable local, regional, and Statewide GHG reduction plans and strategies. On a regional level, the SCAG 2020-2045 RTP/SCS contains measures to achieve VMT reductions required under SB 375. On a Statewide level, the 2017 Scoping Plan Update provides measures to achieve SB 32 targets. Thus, if the project complies with these plans, policies, regulations, and requirements, the project will result in a less than significant impact because it would be consistent with the overarching State and regional plans for GHG reduction. A consistency analysis is provided below and describes the project's compliance with performance-based standards included in the regulations outlined in the applicable portions of the 2020-2045 RTP/SCS and 2017 Scoping Plan Update.

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT (AVAQMD) THRESHOLDS

According to the AVAQMD *California Environmental Quality Act and Federal Conformity Guidelines* (CEQA and Federal Conformity Guidelines), the annual emissions threshold for GHG emissions is 100,000 metric tons of CO_2 equivalent per year ($MTCO_2e/yr$). A project is considered significant if it triggers or exceeds this annual threshold.

CEQA SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Environmental Checklist Form that was used during the preparation of this PEIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact Statement GHG-1); and

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced

[4] See Generally California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action* (December 2009), pp. 11-13, 14, 16; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009, https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf, accessed October 20, 2021.

[5] 14 CCR Section 15064(h)(3).

to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.10.4 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS

GHG-1 GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT COULD HAVE A SIGNIFICANT IMPACT ON GLOBAL CLIMATE CHANGE.

GHG-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY, OR REGULATION.

Impact Analysis: The intent of the proposed project is to streamline the SB 743 compliance process for development projects while funding future VMT-reducing transportation improvements to reduce Citywide VMT. The program itself does not propose any demolition or development activities within the City. Future transportation improvements would be City-initiated or occur as part of development projects and would occur in incremental phases over time, based largely on funding availability, economic considerations, market demand, and other planning considerations. The phasing and exact details of each future VMT-reducing improvement would be evaluated by the City on a case-by-case basis. Therefore, construction and operational GHG emissions are not quantified as part of this programmatic analysis.

Project-Related Sources of Greenhouse Gases

Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity and natural gas consumption, water demand, and solid waste generation. However, the proposed project-related GHG emissions would not include emissions from indirect sources as the funded transportation improvements would not involve any building construction that may use natural gas, water, or generate solid waste during operation. Similarly, future transportation improvements would not generate area source emissions as no building construction would occur. Additionally, future funded transportation improvements would reduce mobile source emissions as the intent of the proposed program is to reduce Citywide VMT.

It is acknowledged that pedestrian crosswalk traffic signals and traffic signal modifications are potential transportation improvements that may utilize electricity. However, energy associated GHG emissions from traffic signal electricity usage would be minimal compared to the project's GHG reduction as the project would reduce Citywide VMT and associated mobile source emissions.

Further, all future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to

evaluate project-level GHG impacts and to identify any required mitigation. As such, impacts would be less than significant.

Consistency with Applicable GHG plans, Policies, or Regulations

The GHG plan consistency for the project is based on the project's consistency with the 2020-2045 RTP/SCS, the 2017 Scoping Plan Update, and applicable goals found within the City's CAP. The 2020-2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the southern California region. The 2020-2045 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The 2017 Scoping Plan Update describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030. The City's CAP contains VMT reduction goals and strategies that would help implement VMT-reducing measures and would subsequently reduce energy consumption and GHG emissions within the City.

Consistency with the SCAG 2020-2045 RTP/SCS

The 2020-2045 RTP/SCS includes performance goals that were adopted to help focus future investments on the best-performing projects; and different strategies to preserve, maintain, and optimize the performance of the existing transportation system. These goals are discussed in greater detail in Section 5.1, *Land Use and Relevant Planning*. The 2020-2045 RTP/SCS is forecasted to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020, and by 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. Five key SCS strategies are included in the 2020-2045 RTP/SCS to help the region meet its regional VMT and GHG reduction goals. Table 5.10-1, *Project Consistency with the 2020-2045 RTP/SCS*, evaluates the project's consistency with the 2020-2045 RTP/SCS strategies. As detailed, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 5.10-1
Project Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets • Plan for growth near transit investments and support implementation of first/last mile strategies • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) • Identify ways to 'right size' parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.**	**Consistent.** No land use development would occur as part of the project. However, the proposed project would fund VMT-reducing transportation improvements, such as bus bulb-outs, traffic signal modifications for bike phasing, neighborhood traffic circles, crosswalks, and other traffic calming features that would provide and expand multimodal transportation amenities and opportunities in the City. Thus, the improvements would facilitate multimodal access to work, education, and other destinations. The intent of the program is to reduce Citywide VMT, and thus, would contribute towards reducing commute times and distances within Lancaster and reliance on and number of solo car trips. The intent of the program is to reduce Citywide VMT, and thus, would contribute towards reducing commute times and distances within Lancaster and reliance on and number of solo car trips. The potential transportation improvements would also improve mobility in the City. As such, the project would be consistent with the strategy.
Promote Diverse Housing Choices		
• Preserve and rehabilitate affordable housing and prevent displacement • Identify funding opportunities for new workforce and affordable housing development • Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply • Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	**PGA, Job Centers, HQTAs, NMA, TPAs, Livable Corridors, Green Region, Urban Greening.**	Not Applicable. The project would not involve any building construction. As such, the strategy is not applicable to the project.

Table 5.10-1 [cont'd]
Project Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Leverage Technology Innovations		
• Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space • Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments • Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**HQTA, TPAs, NMA, Livable Corridors.**	Consistent. The project would fund VMT-reducing transportation improvements, which may include bike or car sharing programs along with other multi-modal improvements and amenities. As such, the project would be consistent with this reduction strategy.
Support Implementation of Sustainability Policies		
• Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions • Support Statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations • Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space • Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies • Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region • Continue to support long range planning efforts by local jurisdictions • Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.**	**Consistent.** The proposed project aims to establish mitigation for projects that exceed the City's VMT thresholds in the form of a mitigation fee. Establishing a fee mechanism for development projects to mitigate their potentially significant VMT impacts would reduce barriers to new construction and incentivize development in the City. Additionally, the fee would fund potential VMT-reducing transportation improvements in the City that would also reduce associated GHG emissions from mobile sources. As such, the proposed project would be consistent with this strategy.

Table 5.10-1 [cont'd]
Project Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Promote a Green Region		
• Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards • Support local policies for renewable energy production, reduction of urban heat islands, and carbon sequestration • Integrate local food production into the regional landscape • Promote more resource efficient development focused on conservation, recycling, and reclamation • Preserve, enhance, and restore regional wildlife connectivity • Reduce consumption of resource areas, including agricultural land • Identify ways to improve access to public park space	**Green Region, Urban Greening, Greenbelts and Community Separators.**	**Not Applicable**. The proposed project would not involve any development that would affect green region or delay the implementation of any related plans. As such, this strategy is not applicable to the project.

Source: Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal, September 3, 2020.

Consistency with the 2017 CARB Scoping Plan Update

The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve Statewide GHG emissions targets. Provided in Table 5.10-2, *Project Consistency with the 2017 Scoping Plan Update*, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions/strategies outlined in the 2017 Scoping Plan Update.

Table 5.10-2
Project Consistency with the 2017 Scoping Plan Update

Actions and Strategies	Project Consistency Analysis
SB 350	
Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.	**Not Applicable**. The proposed project is a City-initiated fee program to reduce development project impacts related to VMT under CEQA. The program is not related to any electrical provider. Furthermore, the project would not affect the City's electricity usage as the project would not involve any building development. As such, this goal is not applicable to the project.
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**Consistent**. While not directly related to fuel usage, implementation of the transportation improvements funded by the proposed program is intended to reduce Citywide VMT and thus, would indirectly reduce fuel usage. The program would not regulate the type of fuel utilized by motor vehicles driven within the City. However, all motor vehicles would be required to use LCFS complaint fuels, thus the project would be in compliance with this goal.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	
Maintain existing GHG standards of light and heavy-duty vehicles while adding an addition 4.2 million zero-emission vehicles (ZEVs) on the road. Increase the number of ZEV buses, delivery trucks, or other trucks.	**Consistent**. The project does not propose any demolition or development activities. However, truck uses within the City would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The proposed project would not conflict with the CARB's goal of adding 4.2 million ZEVs on the road. Furthermore, development within the City would be required to comply with the most current version of the Title 24 and CALGreen Code at the time of construction. The current version of the CALGreen code requires the installation of electric vehicle (EV) charging stations in public parking lots. As such, the project would not conflict with the goals of the Mobile Source Strategy.
Sustainable Freight Action Plan	
Improve the freight system efficiency and maximize the use of near zero emission vehicles and equipment powered by renewable energy. Deploy over 100,000 zero-emission trucks and equipment by 2030.	**Consistent**. As described above, truck uses within the City would be required to comply with all CARB regulations, including the LCFS and newer engine standards. Additionally, the project would not conflict with CARB's goal to deploy over 100,000 zero-emission trucks and equipment by 2030, as the project would comply with all future applicable regulatory standard adopted by CARB. As such, the project would not conflict with the Sustainable Freight Action Plan.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**Consistent.** The transportation improvements funded by the proposed program would not result in operational GHG emissions impacts and would decrease Citywide VMT and associated mobile source emissions. Furthermore, all future transportation improvements would be required to comply with applicable CARB and AVAQMD hydrofluorocarbon regulations. As such, the proposed project would not conflict with the SLCP reduction strategy.

Table 5.10-2 [cont'd]
Project Consistency with the 2017 Scoping Plan Update

Actions and Strategies	Project Consistency Analysis
SB 375 Sustainable Communities Strategies	
Increase the stringency of the 2035 GHG emission per capita reduction target for metropolitan planning organizations (MPO).	**Consistent**. As shown in Table 5.10-1, the project would be consistent with the 2020-2045 RTP/SCS and would not conflict with the goals of SB 375. Furthermore, the project would be consistent with the City's CAP goals by reducing Citywide VMT. As such, the project would be consistent with this strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on Statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable**. The proposed project would reduce mobile source GHG emissions given that the future transportation improvements would decrease Citywide VMT. As such, the Cap-and-Trade Program is not applicable to the project.
Source: California Air Resources Board, *2017 Scoping Plan*, November 2017.	

Consistency with the City's Climate Action Plan

The City adopted a CAP in March 2017. The CAP documents the City's GHG emissions inventories and the progress the City has made through its alternative energy and sustainability programs. The CAP outlines how the City would meet the State GHG reduction targets for 2020 and make substantial progress towards achieving the post-2020 targets. Project consistency with the applicable CAP measures is analyzed in Table 5.10-3, *Project Consistency with the Climate Action Plan*. As depicted in Table 5.10-3, the proposed project would be consistent with the City's CAP.

Table 5.10-3
Project Consistency with the Climate Action Plan

Measure Code	Measure	Project Consistency Analysis
Transportation		
4.1.2a: Roundabouts	Install roundabouts at appropriate locations to ensure the efficient flow of traffic.	**Consistent**. As detailed in Table 3-1, *Potential VMT-Reducing Improvements*, the proposed project would fund transportation improvements such as one-lane roundabouts and traffic circles. Thus, the project would be consistent with the CAP Measure Code 4.1.2a.
4.1.2b: Bike Lanes	Installation of Class I, Class II, and Class III bike lanes to provide safe cycling facilities for residents.	**Consistent.** Potential VMT-reducing improvements funded by the program would include two-way cycle tracks, multi-purpose paths, bicycle lanes, and traffic signal modifications for bike phasing; refer to Table 3-1. Thus, the project would be consistent with the CAP Measure Code 4.1.2b.

Table 5.10-3 [cont'd]
Project Consistency with the Climate Action Plan

Measure Code	Measure	Project Consistency Analysis
4.1.2c: Pedestrian Amenities	Provide pedestrian amenities throughout the City to encourage walking instead of driving.	**Consistent.** The proposed project would fund potential VMT-reducing improvements such as sidewalks with curb and gutter, widened sidewalks, multi-purpose paths, crosswalks, rectangular rapid flashing beacons, curb pop-outs, pedestrian refuge islands, and widened shoulders; refer to Table 3-1. Thus, the project would be consistent with the CAP Measure Code 4.1.2c.
4.1.2d: Traffic Signal Synchronization	Synchronization of the traffic signals along segments of major roadways to provide for a more efficient transportation network.	**Consistent.** The proposed project would fund potential VMT-reducing improvements such as traffic signal modifications for bike phasing and new traffic signals for pedestrian crosswalks; refer to Table 3-1. These improvements would make transportation network more efficient. Thus, the project would be consistent with the CAP Measure Code 4.1.2d.
4.1.2e: Roadway Right Sizing	Implement road right-sizing where determined to be appropriate in order to ensure a comprehensive roadway network.	**Consistent.** The proposed project would fund potential VMT-reducing improvements such as restriped roadways, and widened shoulders, sidewalks, and medians; refer to Table 3-1. Thus, the project would be consistent with the CAP Measure Code 4.1.2e.

Source: City of Lancaster, *City of Lancaster Climate Action Plan*, March 2017.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the proposed project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in the 2020-2045 RTP/SCS, the 2017 Scoping Plan Update, and the City's CAP. The proposed project would also be consistent with the General Plan; refer to Section 5.11, *Energy*. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. As the project does not conflict with 2020-2045 RTP/SCS, the 2017 Scoping Plan, or the City's CAP, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.10.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed

project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

GREENHOUSE GAS EMISSIONS AND CONSISTENCY WITH APPLICABLE GHG PLANS, POLICIES, OR REGULATIONS

- **GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD HAVE A SIGNIFICANT IMPACT ON GLOBAL CLIMATE CHANGE.**

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY, OR REGULATION.**

Impact Analysis: It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[6] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[7] The additive effect of the project's GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project, as well as other cumulative projects developed in accordance with the General Plan would be subject to all applicable regulatory requirements (e.g., California Energy Code and CALGreen Code), which would further reduce GHG emissions. As stated above, implementation of the transportation improvements funded by the proposed program would result in a less than significant impact regarding GHG emissions, as the project would decrease Citywide VMT and associated mobile source GHG emissions. As discussed above, the proposed project would be consistent with the applicable measures in the 2020-2045 RTP/SCS, the 2017 Scoping Plan Update, and the City's CAP. Thus, the project would not cumulatively contribute to GHG impacts and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.10.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to GHG emissions have been identified in this section.

[6] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.

[7] Ibid.

5.11 Energy

5.11 ENERGY

This section analyzes potential project impacts related to energy consumption and energy plan consistency. Potential direct and indirect environmental impacts associated with the proposed program are evaluated in this section. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) during both construction and operational activities.

5.11.1 EXISTING SETTING

ELECTRICITY/NATURAL GAS SERVICES

While Southern California Edison (SCE) is the default electricity service provider in the region, Lancaster Choice Energy (LCE) provides electric generation services in the City with higher renewable energy content. LCE is supported by SCE who continues to deliver the electricity, provide billing, customer service, and power line maintenance and repair. LCE only replaces the electric generation services with higher renewable energy content at more affordable rates. Over the past 15 years, electricity generation in California has undergone a transition. Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures and tax incentives, California's electrical system has become more reliant on renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Unlike petroleum production, generation of electricity is usually not tied to the location of the fuel source and can be delivered great distances via the electrical grid. The generating capacity of a unit of electricity is expressed in megawatt (MW). One MW provides enough energy to power 1,000 average California homes per day. Net generation refers to the gross amount of energy produced by a unit, minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh).

The Southern California Gas Company (SCGC) provides natural gas services to the City. Natural gas is a hydrocarbon fuel found in reservoirs beneath the earth's surface and is composed primarily of methane (CH_4). It is used for space and water heating, process heating and electricity generation, and as transportation fuel. Use of natural gas to generate electricity is expected to increase in coming years because it is a relatively clean alternative to other fossil fuels like oil and coal. In California and throughout the western United States, many new electrical generation plants that are fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. Nearly 45 percent of the electricity consumed in California was generated using natural gas.[1] While the supply of natural gas in the United States and production has increased greatly, California produces little, and imports 90 percent of its natural gas.[2]

[1] California Energy Commission, *Supply and Demand of Natural Gas in California*, https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california, accessed October 12, 2021.

[2] Ibid.

ENERGY USAGE

Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy usage in California was 7,802.3 trillion BTU in 2019 (the most recent year for which this specific data is available), which equates to an average of 198 million BTU per capita.[3,4] Of California's total energy usage, the breakdown by sector is 39.4 percent transportation, 23.1 percent industrial, 18.8 percent commercial, and 18.7 percent residential.[5] Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use. In 2020, taxable gasoline sales (including aviation gasoline) in California accounted for approximately 14 billion gallons of gasoline.[6]

The electricity consumption attributable to Los Angeles County from 2009 to 2019 is shown in Table 5.11-1, *Electricity Consumption in Los Angeles County, 2009-2019*.[7] As indicated in Table 5.11-1, electricity consumption in Los Angeles County remained relatively constant between 2009 to 2013, peaked in 2014, and started to decline since 2015.

Table 5.11-1
Electricity Consumption in Los Angeles County, 2009-2019

Year	Electricity Consumption (in millions of kilowatt hours)
2009	69,950
2010	68,258
2011	68,197
2012	69,271
2013	68,373
2014	69,953
2015	69,532
2016	69,414
2017	68,657
2018	67,907
2019	66,119

Source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms. energy.ca.gov/elecbycounty.aspx, accessed October 12, 2021.

[3] U.S. Energy Information Administration, *Rankings: Total Energy Consumed per Capita, 2019 (million Btu)*, https://www.eia.gov/state/rankings/?sid=CA#series/12, accessed October 12, 2021.

[4] U.S. Energy Information Administration, *Table F33: Total Energy Consumption, Price, and Expenditure Estimates, 2019*, https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_te.html&sid=US, accessed October 12, 2021.

[5] U.S. Energy Information Administration, *California Energy Consumption by End-Use Section, 2019*, https://www.eia.gov/state/?sid=CA#tabs-1, accessed October 12, 2021.

[6] California Department of Tax and Fee Administration, *Net Taxable Gasoline Gallons*, https://www.cdtfa.ca.gov/taxes-and-fees/MVF-10-Year-Report.xlsx, accessed October 12, 2021.

[7] Electricity consumption data is not available for the City. The year 2019 is the most recent year for which the County's electricity consumption data is available.

The natural gas consumption in Los Angeles County from 2009 to 2019 is shown in Table 5.11-2, *Natural Gas Consumption in Los Angeles County, 2009-2019*.[8] As indicated in Table 5.11-2, natural gas consumption in Los Angeles County remained relatively constant between 2009 and 2019, with no substantial increase or decrease.

Table 5.11-2
Natural Gas Consumption in Los Angeles County, 2009-2019

Year	Natural Gas Consumption (in millions of therms)
2009	2,897
2010	3,048
2011	3,056
2012	2,959
2013	3,067
2014	2,794
2015	2,762
2016	2,878
2017	2,957
2018	2,922
2019	3,048

Source: California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy. ca.gov/gasbycounty.aspx, accessed October 12, 2021.

GASOLINE/DIESEL FUELS

Automotive fuel consumption in Los Angeles County from 2010 to 2020 is shown in Table 5.11-3, *Automotive Fuel Consumption in Los Angeles County, 2010-2021* (projections for the year 2021 are also shown). As shown in Table 5.11-3, since 2017, on-road automotive fuel consumption in Los Angeles County has generally declined and heavy-duty vehicle fuel consumption has steadily increased.

Table 5.11-3
Automotive Fuel Consumption in Los Angeles County, 2010-2021

Year	On-Road Automotive Fuel Consumption (Gallons)	Heavy-Duty Vehicle/Diesel Fuel Consumption (Gallons)
2010	4,304,076,427	329,505,114
2011	4,236,651,198	339,867,222
2012	4,198,980,534	338,853,704
2013	4,216,912,594	361,667,359
2014	4,253,550,697	362,244,178
2015	4,385,856,315	361,744,298
2016	4,505,175,042	384,515,771
2017	4,519,219,673	383,126,269

[8] Natural gas consumption data is not available for the City. The year 2019 is the most recent year for which the County's natural gas consumption data is available.

Table 5.11-3 [cont'd]
Automotive Fuel Consumption in Los Angeles County, 2010-2021

Year	On-Road Automotive Fuel Consumption (Gallons)	Heavy-Duty Vehicle/Diesel Fuel Consumption (Gallons)
2018	4,424,988,496	387,832,414
2019	4,316,736,552	390,339,591
2020	4,227,065,544	391,991,276
2021(Projected)	4,138,735,098	392,769,572
Source: California Air Resources Board, EMFAC2017.		

5.11.2 REGULATORY SETTING

STATE LEVEL

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. SB 100 requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board, and all other State agencies incorporate this policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve such renewable energy goals.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)

In 1978, the CEC established the Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24," California's energy efficiency standards for residential and non-residential buildings in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. The 2019 Title 24 standards became effective on January 1, 2020. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Under the 2019 Title 24 standards, residential buildings use about 53 percent less energy (mainly due to solar photovoltaic panels and lighting upgrades) when compared to those constructed under 2016 Title 24 standards, and nonresidential buildings use about 30 percent less energy (mainly due to lighting upgrades) when compared to those constructed under 2016 Title 24 standards. The standards require installation of energy efficient windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

California Green Building Code

The California Green Building (CALGreen) Code (California Code of Regulations, Title 24, Part 11) is a Statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2019 and went into effect on January 1, 2020. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.[9]

California Public Utilities Commission Energy Efficiency Strategic Plan

The CPUC prepared an *Energy Efficiency Strategic Plan* (Strategic Plan) in September 2008 with the goal of promoting energy efficiency and GHG reductions. In January 2011, a lighting chapter was adopted and added to the Strategic Plan. The Strategic Plan is California's single roadmap to achieving maximum energy savings in the State from 2009 to 2020 and beyond. The Strategic Plan contains the practical strategies and actions to attain significant Statewide energy savings, as a result of a year-long collaboration by energy experts, utilities, businesses, consumer groups, and governmental organizations in California, throughout the West, nationally and internationally. The plan includes the following four strategies:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;
- HVAC will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

California Energy Commission Integrated Energy Policy Report

In 2002, the California State legislature adopted Senate Bill (SB) 1389, which requires the CEC to develop an Integrated Energy Policy Report (IEPR) every two years. SB 1389 requires the CEC to

[9] U.S. Green Building Council, *Green Building Costs and Savings*, https://www.usgbc.org/articles/green-building-costs-and-savings, accessed October 12, 2021.

conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices, and use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

The CEC adopted the *2020 Integrated Energy Policy Report Update* (2020 IEPR Update) Volume I and Volume III on March 23, 2021, and Volume II on April 15, 2021.[10] The 2020 IEPR Update provides the results of the CEC's assessments of a variety of energy issues facing California, many of which will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs.[11] The year of 2020 was unprecedented as the State continues to face the impacts and repercussions of several events including the COVID-19 pandemic, electricity outages, and Statewide wildfires. In response to these challenging events, the 2020 IEPR Update covers a broad range of topics, including transportation, microgrids, and the California Energy Demand Forecast. Volume I of the 2020 IEPR Update focuses on California's transportation future and the transition to zero-emission vehicles; Volume II examines microgrids, lessons learned from a decade of State-supported research, and stakeholder feedback on the potential of microgrids to contribute to a clean and resilient energy system; and Volume III reports on California's energy demand outlook, updated to reflect the global pandemic and help plan for a growth in zero-emission plug in electric vehicles.[12] Overall, the 2020 IEPR Update identifies actions the State and others can take that would strengthen energy resiliency, reduce GHG emissions that cause climate change, improve air quality, and contribute to a more equitable future.

LOCAL LEVEL

City of Lancaster General Plan 2030

The General Plan was adopted on July 14, 2009 and has a horizon year of 2030. The General Plan includes the following elements or plans: natural environment, public health and safety, active living, physical mobility, municipal services and facilities, economic development and vitality and physical development. The Plan for the Natural Environment chapter includes goals, objectives, policies, and actions related to energy resources and efficiency. The objectives and policies related to the proposed project are listed in the following:

Objective 3.6: Encourage efficient use of energy resources through the promotion of efficient land use patterns and the incorporation of energy conservation practices into new and existing development, and appropriate use of alternative energy.

[10] California Energy Commission, *2020 Integrated Energy Policy Report Update, March 25, 2021*, https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2020-integrated-energy-policy-report-update, accessed October 12, 2021.

[11] California Energy Commission, *Final 2020 Integrated Energy Policy Report Update Volume I - Blue Skies, Clean Transportation*, https://www.energy.ca.gov/sites/default/files/2021-03/2020_IEPR_Update%20Vol%20I%20ExectuiveSummary.pdf, accessed October 12, 2021.

[12] Ibid.

Policy 3.6.1: Reduce energy consumption by establishing land use patterns which would decrease automobile travel and increase the use of energy efficient modes of transportation.

Policy 3.6.2: Encourage innovative building, site design, and orientation techniques which minimize energy use.

Policy 3.6.3: Encourage the incorporation of energy conservation measures in existing and new structures.

Policy 3.6.4: Support State and Federal legislation that would eliminate wasteful energy consumption in an appropriate manner.

Policy 3.6.5: Promote the amount of energy consumed by City operations and assist residents and businesses in reducing their energy consumption rates.

Policy 3.6.6: Consider and promote the use of alternative energy such as wind energy and solar energy.

5.11.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Environmental Checklist Form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (refer to Impact Statement EN-1); and

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency (refer to Impact Statement EN-2).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of goals, policies, standards, or mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

Appendix F of the CEQA Guidelines is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. The analysis in Impact Statement EN-1 relies upon Appendix F of the CEQA Guidelines, which includes the following criteria to determine whether this threshold of significance is met:

- **Criterion 1**: The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

- **Criterion 2**: The effects of the project on local and regional energy supplies and on requirements for additional capacity.

- **Criterion 3**: The effects of the project on peak and base period demands for electricity and other forms of energy.

- **Criterion 4**: The degree to which the project complies with existing energy standards.

- **Criterion 5**: The effects of the project on energy resources.

- **Criterion 6**: The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The project's energy usage is qualitatively discussed and addresses Criterion 1. The discussion on construction-related energy use focuses on Criteria 2, 4, and 5. The discussion on operational energy use focuses transportation energy demand and discusses Criteria 2, 3, 4, and 6, as the proposed program would not affect the City's building energy demand.

5.11.4 IMPACTS AND MITIGATION MEASURES

ENERGY CONSUMPTION

EN-1 THE PROJECT COULD RESULT IN WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES.

Impact Analysis: The proposed program would not include funding for development of any habitable structures or other uses that would result in building energy consumption, and therefore would not cause changes to the City's or County's electricity or natural gas consumption. Implementation of the proposed project would result in construction activities associated with VMT-reducing transportation improvements funded by the program, which would result in construction fuel consumption. However, construction details of these projects are unknown at this stage of the planning process and therefore, the associated construction fuel consumption cannot be quantified at this time. Each individual transportation improvement is expected to be small in scale (in the context of Citywide and Countywide energy consumption) with a limited construction duration, and would not significantly increase the City's or County's construction fuel consumption. Additionally, all future transportation improvements, including those implemented as part of development projects, would require separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project-specific energy consumption impacts and identify any required mitigation.

Further, the intent of the proposed program is to reduce Citywide VMT, which would proportionally reduce Citywide operational fuel consumption. Since the details of the potential transportation improvements are unknown at this stage of the planning process, total operational fuel consumption reduction associated with the future transportation improvements cannot be quantified at this time (CEQA Appendix F - Criterion 1).

Construction-Related Energy

During construction, the transportation improvements would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. However, as stated, construction details of these improvements are unknown at this stage of the planning process, and these improvements could be built at any time in the future as funding provided by the proposed program becomes available. Therefore, construction-related energy consumption that may occur at any one time is speculative and cannot be accurately determined at this time. Additionally, as stated above, future transportation improvements, including those implemented as part of development projects would be subject to environmental review on a project-by-project basis, and specific mitigation measures would be implemented to reduce construction-related energy consumption impacts during construction, as needed.

Notwithstanding, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. In addition, because the cost of fuel and transportation is a significant aspect of construction budgets, contractors have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction (CEQA Appendix F - Criterion 4).

Significant reductions in energy inputs for construction materials can be achieved by selecting construction materials composed of recycled materials that require less energy to produce than non-recycled materials.[13] The integration of resource-efficient construction materials can help reduce environmental impacts associated with the extraction, transport, processing, fabrication, installation, reuse, recycling, and disposal of these construction materials.[14] It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual characteristics associated with future transportation improvements funded by the proposed program that would necessitate the use of construction equipment, materials, or methods that would be less energy efficient than at comparable construction sites in the region or State. Therefore, fuel energy and construction materials consumed during construction would not represent a significant demand on energy resources (CEQA Appendix F - Criterion 5).

[13] California Department of Resources Recycling and Recovery, *Green Building Materials*, https://www.calrecycle.ca.gov/greenbuilding/materials#Material, accessed October 12, 2021.

[14] Ibid.

Overall, construction energy use associated with future VMT-reducing projects funded by the proposed program would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A less than significant impact would occur in this regard.

Operational Energy

Transportation Energy Demand

Future transportation improvement projects funded by the proposed program may include bus bulb-outs, crosswalks, pedestrian refuge islands, widened sidewalks, and multi-purpose paths, among others; refer to Table 3-1, *Potential VMT-Reducing Improvements*. Such improvements would not require operational energy use. It is acknowledged that some improvements would require lighting (e.g., bus shelters, etc.) or other electrical element (e.g., pedestrian crosswalk traffic signals and rectangular rapid flashing beacons) and thus, may require minimal ongoing operational energy demand. Nevertheless, implementation of future transportation improvements funded by the proposed program, as a whole, would reduce Citywide VMT and associated fuel consumption, and therefore would not result in excessive long-term operational fuel consumption (CEQA Appendix F - Criterion 2). The lighting and other electric element required by the improvements would be minimal and would not cause additional peak and base period demands for electricity (CEQA Appendix F - Criterion 3).

The key drivers of transportation-related fuel consumption are job locations/commuting distance and many personal choices on when and where to drive for various purposes. Those factors are not within the scope of the proposed program and associated transportation improvements. However, VMT-reducing improvements funded by the proposed program would encourage residents, workers, and visitors of the City to use alternative transportation methods, including walking, biking, and transit, and contribute towards improving the overall traffic flow throughout the City. Therefore, implementation of the proposed program would contribute towards reducing Citywide fuel consumption (CEQA Appendix F - Criterion 4 and Criterion 6).

Overall, fuel consumption associated with the proposed program would not be considered inefficient, wasteful, or unnecessary in comparison to other developments in the region. A less than significant impact would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CONFLICT WITH APPLICABLE ENERGY PLAN

EN-2 THE PROJECT COULD CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY.

Impact Analysis: The proposed program would comply with the applicable goals identified in the General Plan, as detailed in Table 5.11-4, *Proposed Program General Plan Consistency Analysis*. The General Plan contains energy resources and efficiency objectives and policies that would help implement

renewable energy and energy efficient measures and would subsequently reduce energy consumption within the City. As the proposed program would not affect the City's building energy consumption, the Title 24 standards, CALGreen Code, and RPS do not apply to the proposed program. Therefore, the proposed program would result in less than significant impacts associated with renewable energy or energy efficiency plans.

Table 5.11-4
Proposed Program General Plan Consistency Analysis

Policies	Project Consistency
Policy 3.6.1: Reduce energy consumption by establishing land use patterns which would decrease automobile travel and increase the use of energy efficient modes of transportation.	**Consistent.** Implementation of the proposed program would involve transportation improvements that would contribute towards reducing Citywide VMT. Therefore, the project would be consistent with this policy.
Policy 3.6.2: Encourage innovative building, site design, and orientation techniques which minimize energy use.	**Not Applicable.** The proposed program would not involve building construction. Therefore, this policy is not applicable to the program.
Policy 3.6.3: Encourage the incorporation of energy conservation measures in existing and new structures.	**Not Applicable.** The proposed program would not involve building construction or modification to existing buildings. Therefore, this policy is not applicable to the program.
Policy 3.6.4: Support State and Federal legislation that would eliminate wasteful energy consumption in an appropriate manner.	**Consistent.** The proposed program would streamline the SB 743 compliance process for development projects that trigger potentially significant VMT impacts under CEQA. The proposed program would fund VMT-reducing transportation improvements within the City and thus, supports eliminating wasteful energy consumption.
Policy 3.6.5: Promote the amount of energy consumed by City operations and assist residents and businesses in reducing their energy consumption rates.	**Consistent.** The proposed program would fund transportation improvement projects that would reduce Citywide VMT, which would reduce associated transportation energy consumption rates of City residents and businesses. Therefore, the program would be consistent with this policy.
Policy 3.6.6: Consider and promote the use of alternative energy such as wind energy and solar energy.	**Not Applicable.** The proposed program would not involve building construction nor directly consume energy during operational activities. Therefore, this policy is not applicable to the program.

Sources: City of Lancaster, *City of Lancaster General Plan 2030,* July 14, 2009.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.11.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

ENERGY CONSUMPTION AND PLAN CONSISTENCY

- **IMPLEMENTATION OF THE PROJECT AND OTHER CUMULATIVE PROJECTS COULD RESULT IN WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES.**

- **IMPLEMENTATION OF THE PROJECT AND OTHER CUMULATIVE PROJECTS COULD CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY.**

Impact Analysis: The geographic context for cumulative energy consumption impacts for electricity and natural gas is Countywide and relative to LCE and SCGC's service areas. While the geographic context for the transportation-related energy use is more difficult to define, it is meaningful to consider the project in the context of Countywide consumption. Future growth within the County is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure. As discussed above, the proposed program would not affect the City's electricity and natural gas consumption, would nominally increase construction fuel consumption, and would cause a net decrease of operational fuel consumption. Additionally, the program and other cumulative projects developed in accordance with the General Plan would be subject to all applicable energy standards, as well as objectives and policies of the General Plan. Cumulative development projects also would be required to implement any required mitigation measures on a project-by-project basis, as applicable, pursuant to CEQA provisions. Thus, the proposed program and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. As such, implementation of the program and other cumulative projects would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.11.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to energy have been identified.

5.12 Noise

5.12 NOISE

This section evaluates short-term construction-related and long-term operational impacts associated with potential VMT-reducing transportation improvements funded by the proposed program. Mitigation measures are also recommended to avoid or lessen the project's noise impacts.

5.12.1 EXISTING SETTING

NOISE SCALES AND DEFINITIONS

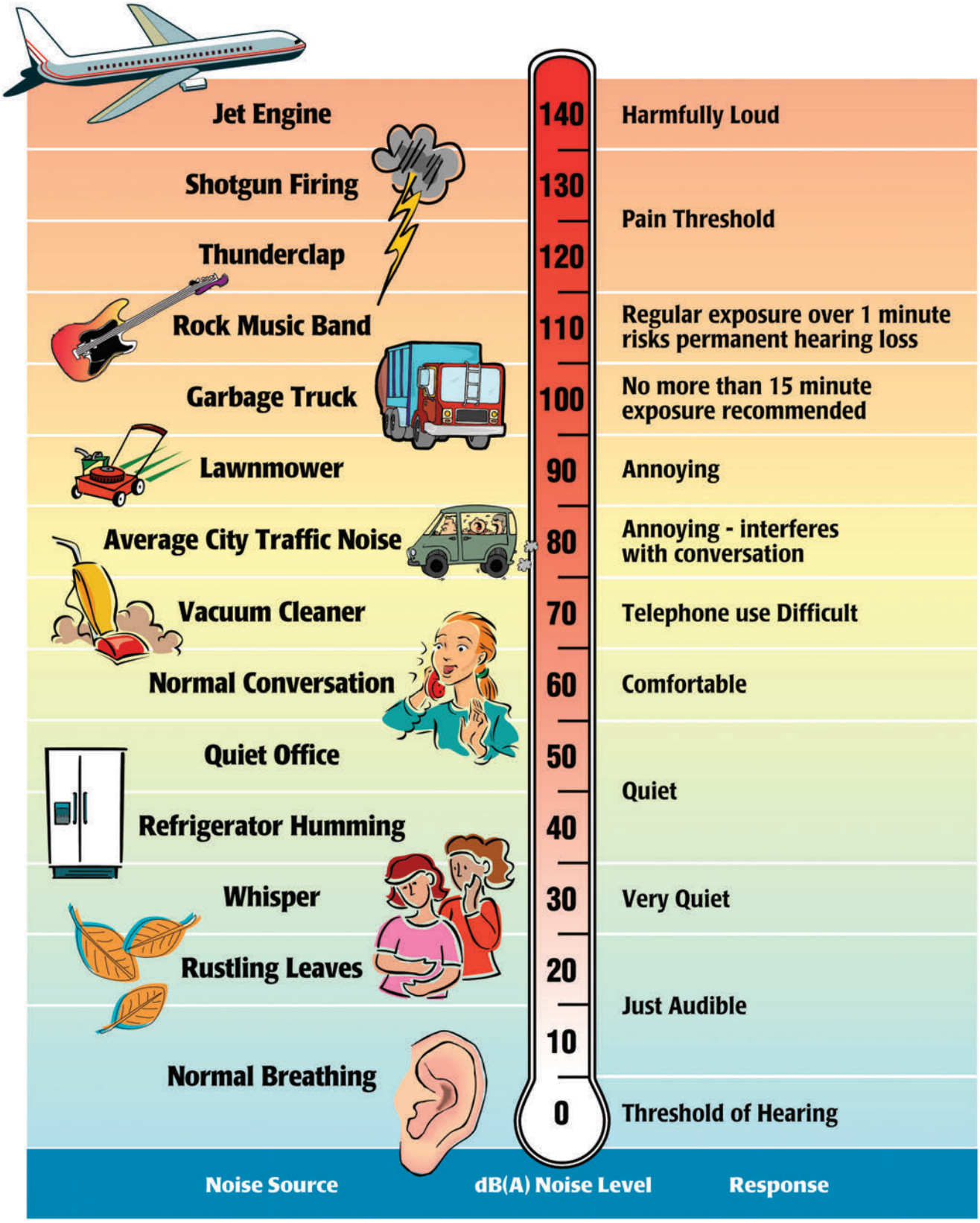
Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 5.12-1, *Common Environmental Noise Levels*.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table 5.12-1, *Noise Descriptors*.



Source:

Melville C. Branch and R. Dale Beland, *Outdoor Noise in the Metropolitan Environment*, 1970.

Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004)*, March 1974.

Common Environmental Noise Levels

Table 5.12-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, *Handbook of Noise Control*, dated 1979.

HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. However, many factors influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss;
- Interference with Communication;
- Effects of Noise on Sleep;

- Effects on Performance and Behavior;
- Extra-Auditory Health Effects; and
- Annoyance.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUNDBORNE VIBRATION

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. Typically, groundborne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source. Both construction and operation of development projects can generate groundborne vibration.

Table 5.12-2, *Human Reaction and Damage to Buildings for Continuous Vibration Levels*, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in Table 5.12-2 should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Table 5.12-2
Human Reaction and Damage to Buildings for Continuous Vibration Levels

Peak Particle Velocity (inch/second)	Human Reaction	Effect on Buildings
0.006-0.019	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings[1]
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Note:
1. Historic and some old buildings have a threshold of 0.25 PPV (in/sec).

Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual, Table 20, April 2020.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of noise than are the general population. Land uses considered sensitive by the State of California include residences, schools, playgrounds, athletic facilities, hospitals, rest homes, rehabilitation centers, long-term care and mental care facilities. Generally, a sensitive receptor is identified as a location where human populations (especially children, senior citizens, and sick persons) are present.

Land uses less sensitive to noise are business, commercial, and professional developments. Noise receptors categorized as being least sensitive to noise include industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, and transit terminals. These types of land uses often generate high noise levels. Moderately sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, and outpatient clinics. Current land uses within the City that are sensitive to intrusive noise include residential, health care, and public uses.

EXISTING NOISE ENVIRONMENT

Existing noise sources in the City consist of stationary and transportation sources. Stationary sources of noise include airports; industrial and construction activities; air conditioning and refrigeration units; whistles or bells (signaling breaks or shift changes); high level radio, stereo, or television usage; power tools; lawnmowers; appliances used in the home; and barking dogs. Transportation-related noise sources include aircrafts, trains, automobiles, trucks, buses, and off-road vehicles. Existing traffic noise contours are show on Exhibit 5.12-2, *Existing Traffic Noise Contours*. As shown on Exhibit 5.12-2, the greatest noise levels occur along Avenue L, Avenue M, and Sierra Highway.

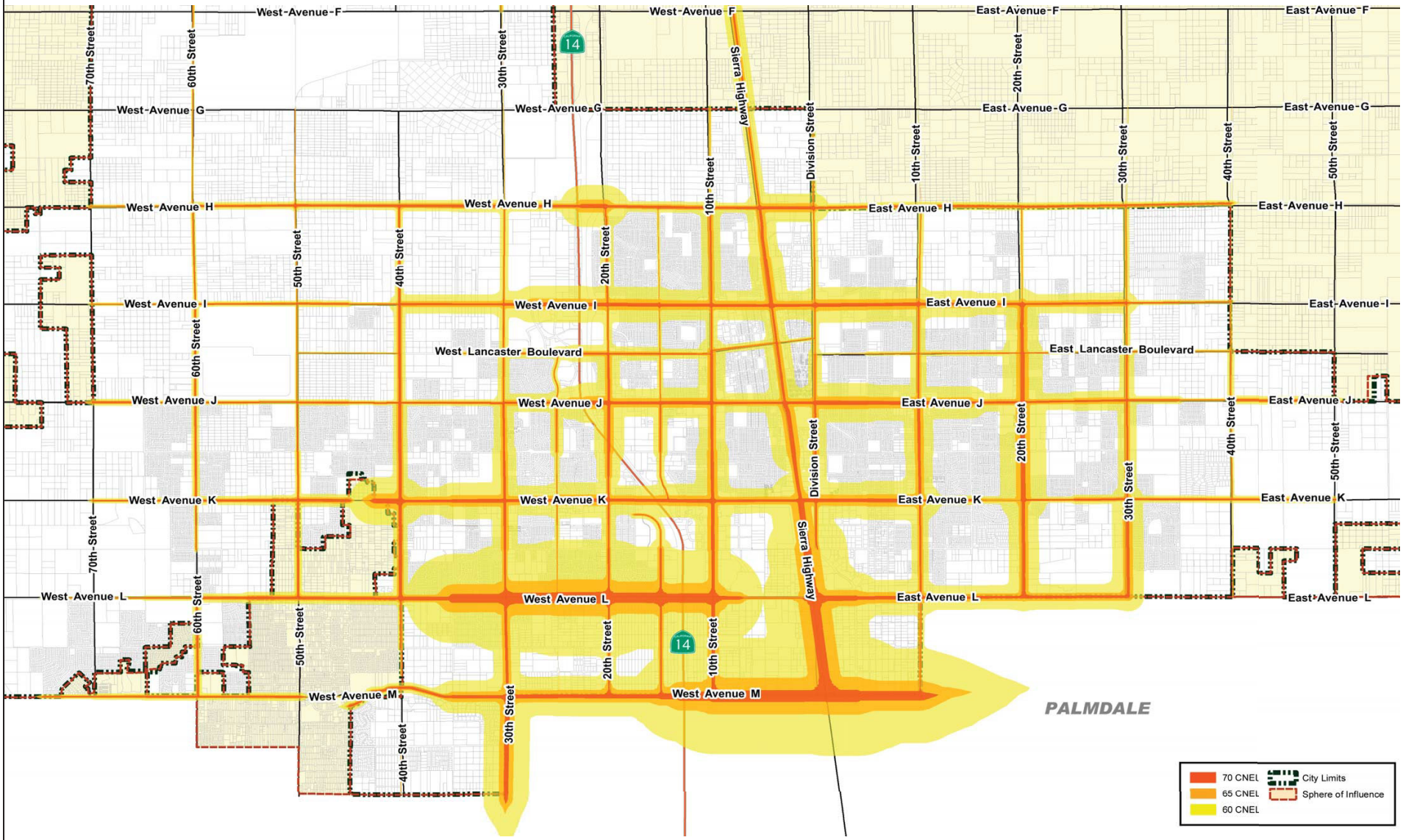
5.12.2 REGULATORY SETTING

This section summarizes the laws, ordinances, regulations, and standards that are applicable to the project. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, Federal and State agencies provide standards and guidelines to the local jurisdictions.

FEDERAL LEVEL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) offers guidelines for community noise exposure in the publication *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise*. These guidelines consider occupational noise exposure as well as noise exposure in homes. The EPA recognizes an exterior noise level of 55 decibels day-night level (dB L_{dn}) as a general goal to protect the public from hearing loss, activity interference, sleep disturbance, and annoyance. The EPA and other Federal agencies have adopted suggested land use compatibility guidelines that indicate that residential noise exposures of 55 to 65 dB L_{dn} are acceptable. However, the EPA notes that these levels are not regulatory goals, but are levels defined by a negotiated scientific consensus, without concern for economic and technological feasibility or the needs and desires of any particular community.



VEHICLE MILES TRAVELED MITIGATION PROGRAM
ENVIRONMENTAL IMPACT REPORT

Existing Traffic Noise Contours

Michael Baker INTERNATIONAL

11/2021 JN 184421

Exhibit 5.12-2

STATE LEVEL

California Environmental Quality Act

The State Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. Table 5.12-3, *Land Use Compatibility for Community Noise Environments*, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 5.12-3
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential-Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 - 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 77.5	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Notes: CNEL = community noise equivalent level; NA = not applicable

NORMALLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

NORMALLY UNACCEPTABLE: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.

CLEARLY UNACCEPTABLE: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, California, *General Plan Guidelines,* July 2017.

As depicted in Table 5.12-3, the range of noise exposure levels overlap between the normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable categories. OPR's *State General Plan Guidelines* note that noise planning policy needs to be rather flexible and

dynamic to reflect not only technological advances in noise control, but also economic constraints governing application of noise-control technology and anticipated regional growth and demands of the community. In project-specific analyses, each community must decide the level of noise exposure its residents are willing to tolerate within a limited range of values below the known levels of health impairment. Therefore, the City may use their discretion to determine which noise levels are considered acceptable or unacceptable, based on land use, project location, and other project factors.

LOCAL LEVEL

City of Lancaster General Plan 2030

The Noise section of the Plan for Public Health and Safety (i.e., Noise Element/Safety Element) was adopted by the City to control and abate environmental noise, and to protect the citizens of the City from excessive exposure to noise. The Noise section specifies the maximum exterior noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. To protect City residents from excessive noise, the Noise section contains the following noise-related objectives and policies relevant to the proposed project:

Objective 4.3: Promote noise compatible land use relationships by implementing the noise standards identified in Table 3-1 (Table 5.12-4, *Noise Compatible Land Use Objectives*, below) to be utilized for design purposes in new development, and establishing a program to attenuate existing noise problem[s].

Policy 4.3.1: Ensure that noise-sensitive land uses and noise generators are located and designed in such a manner that City noise objectives will be achieved.

Policy 4.3.2: Wherever feasible, manage the generation of single event noise levels (SENL) from motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities such that SENL levels are no greater than 15 dBA above the noise objectives included in the Plan for Public Health and Safety.

Policy 4.3.3: Ensure that the provision of noise attenuation does not create significant negative visual impacts.

Table 5.12-4
Noise Compatible Land Use Objectives

Land Use Category	Community Noise Exposure (CNEL)	
	Maximum Exterior	Maximum Interior
Rural, Single-Family, Multiple-Family Residential	65 dBA	45 dBA
Schools:		
Classrooms	65 dBA	45 dBA
Playgrounds	70 dBA	-
Libraries	-	50 dBA
Hospitals/Convalescent Facilities:		
Living Areas	-	50 dBA
Sleeping Areas	-	40 dBA
Commercial and Industrial	70 dBA	-
Office Areas	-	50 dBA

Source: City of Lancaster, *Lancaster General Plan 2030*, July 14, 2009.

Lancaster Municipal Code

The City's standards for governing environmental noise are set forth in Chapter 8.24, *Noise Regulations*, of the Municipal Code. For the purpose of this analysis, the noise impacts associated with the project are controlled by the Plan for Public Health and Safety in the General Plan, and the permitted hours of construction activity are established in the Municipal Code.

The City has set restrictions with respect to the hours during which construction activity may take place. Municipal Code Section 8.24.040, *Loud, unnecessary and unusual noises prohibited - Construction and Building*, indicates that:

> *"…a person at any time on Sunday or any day between the hours of 8:00 p.m. and 7:00 a.m. shall not perform any construction or repair work of any kind upon any building or structure or perform any earth excavating, filling or moving where any of the foregoing entails the use of any air compressor, jack hammer, power-driven drill, riveting machine, excavator, diesel-powered truck, tractor or other earth moving equipment, hard hammers on steel or iron or any other machine tool, device or equipment which makes loud noises within 500 feet of an occupied dwelling, apartment, hotel, mobile home or other place of residence."*

5.12.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Environmental Checklist Form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact Statements NOI-1 and NOI-3);

b) Generate excessive groundborne vibration or groundborne noise levels (refer to Impact Statement NOI-2); and/or

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

NOISE IMPACT CRITERIA

Significance of Changes in Traffic Noise Levels

An off-site traffic noise impact typically occurs when there is a discernable increase in traffic and the resulting noise level exceeds an established noise standard. In community noise considerations, changes in noise levels greater than 3.0 dB are often identified as substantial, while changes less than 1 dB will not be discernible to local residents. A 5-dB change is generally recognized as a clearly discernable difference.

As traffic noise levels at sensitive uses likely approach or exceed the City's 65 dBA CNEL maximum noise standard at sensitive uses (e.g., residential and school uses), a 3.0 dB increase as a result of the project is used as the increase threshold for the project. Thus, the project would result in a significant noise impact if a permanent increase in ambient noise levels of 3.0 dB occurs upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

5.12.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION NOISE IMPACTS

NOI-1 CONSTRUCTION-RELATED ACTIVITIES WITHIN THE PROJECT AREA COULD RESULT IN SIGNIFICANT TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.

Impact Analysis: Noise from construction activities is generated by two primary sources: (1) the transport of workers and equipment to construction sites and (2) the noise related to active construction equipment. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors (i.e., residences, hospitals, senior centers, schools, day care facilities, etc.).

The proposed program would fund future VMT-reducing transportation improvements within the City, which would generate noise during construction activities. Construction noise levels are dependent upon the specific locations, site plans, and construction details of individual VMT improvements. Given the programmatic level of the proposed project, construction-related noise impacts that may occur at any one time are speculative and cannot be accurately determined at this stage of the planning process. Construction would be localized and would occur intermittently for varying periods of time. Because specific project-level information is not available at this time, it is not possible to quantify the construction noise impacts at specific sensitive receptors. Construction of individual transportation improvements funded by the proposed program could temporarily increase the ambient noise environment in the vicinity of each individual project. However, all future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project-specific construction noise impacts and identify any required mitigation. Moreover, based on the range of VMT-reducing facilities potentially funded by the proposed project, the majority of potential future improvements would be limited in scope and scale (e.g., sidewalk/path improvements, signal/crosswalk enhancements, etc.), requiring a limited range of construction equipment and a brief construction duration.

Further, pursuant to Municipal Code Section 8.24.040, *Loud, unnecessary and unusual noises prohibited-Construction and building*, construction of future improvements would be limited to the hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday, and is prohibited on Sundays and holidays. Construction noise levels would be further reduced through implementation of Mitigation Measure NOI-1, which would require construction best management practices (BMPs). Specifically, Mitigation Measure NOI-1 would require that all construction equipment be equipped with properly operating and maintained mufflers, locate stationary construction equipment so that emitted noise is directed away from the nearest noise sensitive receptors, locate equipment staging in areas furthest away from sensitive receptors, and limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday). Therefore, compliance with Municipal Code Section 8.24.040 and implementation of Mitigation Measure NOI-1 would reduce short-term construction noise impacts to less than significant levels.

Mitigation Measures:

NOI-1 Each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) shall ensure through contract specifications that construction best management practices (BMPs) are implemented by construction contractors to reduce construction noise levels. Contract specifications shall be included in construction documents, which shall be reviewed and approved by the City of Lancaster Development Services Director prior to issuance of a grading or building permit (whichever is issued first). BMPs to reduce construction noise levels may include, but are not limited to, the following:

- Ensure that construction equipment is properly muffled according to industry standards and is in good working condition.

- Place noise-generating construction equipment and construction staging areas away from sensitive uses.

- Construction activities shall occur between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday, pursuant to Section 8.24.040, *Loud, unnecessary and unusual noises prohibited-Construction and building*, of the Lancaster Municipal Code.

- Implement noise attenuation measures, as needed, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday). The haul route exhibit shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party and the Development Services Director.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

VIBRATION IMPACTS

NOI-2 PROJECT IMPLEMENTATION COULD RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS AND STRUCTURES.

Impact Analysis: Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in

amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

Construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment.

As shown in Table 5.12-2, the California Department of Transportation (Caltrans) has published reactions of people and the effects on buildings produced by continuous vibration levels. Based on Table 5.12-2, there is a risk of architectural damage to normal dwellings at 0.2 inch/second PPV and a risk of architectural damage to historic buildings at 0.25 inch/second PPV. Further, Table 5.12-2 notes that vibrations may begin to annoy people at 0.2 inch/second PPV. The typical vibration produced by construction equipment is illustrated in Table 5.12-5, *Typical Vibration Levels for Construction Equipment*.

Table 5.12-5
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inch/second)	Approximate peak particle velocity at 60 feet (inch/second)	Approximate peak particle velocity at 100 feet (inch/second)
Vibratory compactor/roller	0.210	0.056	0.026
Caisson Drilling	0.089	0.024	0.011
Large bulldozer	0.089	0.024	0.011
Loaded trucks	0.076	0.020	0.010
Jackhammer	0.035	0.009	0.004
Small bulldozer	0.003	0.0008	0.0004

Notes:
1. Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level at 25 feet in in/sec
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Groundborne vibration generated during construction activities would primarily impact existing structures that are located adjacent to or within the vicinity of specific transportation improvements. Based upon the information provided in Table 5.12-5, vibration levels could reach up to 0.210

inch/second PPV for typical construction activities (and up to 1.518 inch/second PPV if pile driving activities were to occur) at structures located within 25 feet of construction. For structures that are located at or within 25 feet of potential project construction sites, structures at these locations may experience vibration levels during construction activities that exceed the Caltrans vibration impact threshold of 0.2 inch/second PPV; refer to Table 5.12-2. Structures located at or further than 26 feet from typical construction activities would not experience vibration levels above the Caltrans vibration impact threshold of 0.2 inch/second PPV. Pursuant to Mitigation Measure NOI-2, should construction activities requiring operation of groundborne vibration generating equipment take place within 25 feet of a structure, a project-specific vibration impact analysis shall be conducted. Future VMT-reducing transportation improvements associated with the proposed program would not include construction of large-scale structures. Therefore, pile driving activities are not expected to occur. With implementation of Mitigation Measure NOI-2, construction vibration levels would not exceed 0.2 inch/second PPV. Therefore, the human annoyance threshold criteria (i.e. 0.2 inch/second PPV) would not be exceeded. Short-term vibration impacts would be less than significant with implementation of Mitigation Measure NOI-2.

With regards to operational impacts, the potential transportation improvements would result in no impacts with regards to groundborne vibration.

Further, it should be noted that all future transportation improvements, including those implemented as part of development projects, would be required to undergo separate environmental review under CEQA to evaluate project-specific groundborne vibration impacts and to identify any required mitigation.

Mitigation Measures:

NOI-2 Prior to issuance of a grading permit, each transportation improvement funded by the proposed program subject to California Environmental Quality Act (CEQA) review (meaning, subject to discretionary action and non-exempt from CEQA) with construction activities requiring operation of groundborne vibration generating equipment (i.e., vibratory compactor/roller, large bulldozer, caisson drilling, loaded trucks, and jackhammer) within 25 feet of an existing structure shall be required to prepare a project-specific vibration impact analysis to evaluate potential construction vibration impacts associated with the project, and to determine any specific vibration control mechanisms that shall be incorporated into the project's construction bid documents to reduce such impacts. Contract specifications shall be included in construction documents, which shall be reviewed and approved by the City Engineer.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LONG-TERM OPERATIONAL NOISE IMPACTS

NOI-3 FUTURE NOISE LEVELS ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN A SUBSTANTIAL PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE PROJECT VICINITY AND EXPOSE PERSONS TO OR GENERATE NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES.

Impact Analysis:

Mobile Sources

The purpose of the proposed program is to establish a mitigation fee mechanism for development projects that trigger a potentially significant VMT impact under CEQA, and to utilize collected funds towards future VMT-reducing transportation improvements to reduce Citywide VMT. As such, the proposed program is not considered a trip-generating land use project. The majority of potential transportation improvements would not increase traffic volumes or cause an increase in ambient noise levels in the project vicinity. For example, constructing crosswalks or pedestrian refuge islands would not result in long-term mobile noise impacts. However, indirect vehicular traffic redistribution as a result of travel lane reductions (e.g., restriping roadways to add bicycle lanes or widen sidewalks and medians) has the potential to increase traffic noise levels on adjacent roadways. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, a doubling of traffic volumes would result in a 3.0 dB increase in traffic noise levels, which is barely detectable by the human ear.[1] As noted under Section 5.12.3, the project would result in a significant noise impact if a permanent increase in ambient noise levels of 3.0 dB occurs upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use (65 dBA CNEL).

This analysis considers a potential lane reduction VMT improvement project to assess traffic noise impacts in the project vicinity. As depicted in Appendix 11.2, *VMT-Reducing Projects*, under the *City of Lancaster Master Plan of Complete Streets*, the 30th Street West Corridor from Avenue J to Avenue L is proposed to be reduced from four travel lanes to two travel lanes. To provide a worst-case scenario, this analysis conservatively assumes 50 percent of existing average daily traffic (ADT) would be redistributed entirely to each adjacent roadway. Table 5.12-6, *Traffic Noise Levels*, shows the existing and potential project redistribution traffic volumes and associated noise levels.

[1] U.S. Department of Transportation, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, updated August 24, 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm, accessed on October 20, 2021.

Table 5.12-6
Traffic Noise Levels

Scenario	Segment	Existing Traffic		Project Potential Traffic Redistribution		Noise Level Increase
		ADT	Noise Level (dBA CNEL)[1]	ADT[2]	Noise Level (dBA CNEL)[1]	
Lane Reduction Segment	30th Street West (Avenue J to Avenue L)	13,711	64.1	6,856	60.9	-3.2
Potentially Redistributed Traffic Segments	Avenue I (40th Street West to 20th Street West)	16,769	66.8	23,625	68.2	1.5
	Avenue J (40th Street West to 20th Street West)	27,028	66.2	33,884	67.2	1.0
	Lancaster Boulevard (40th Street West to 20th Street West)	14,441	64.3	21,297	66.0	1.7
	Avenue K (40th Street West to 20th Street West)	27,955	67.4	34,811	68.4	1.0
Potentially Redistributed Traffic Segments (cont'd)	Avenue L (40th Street West to 20th Street West)	23,285	66.4	30,141	67.5	1.1
	Avenue M (40th Street West to 20th Street West)	14,799	65.2	21,655	66.9	1.7

Notes: ADT = Average Daily Traffic; CNEL = Community Noise Equivalent Level
1. Traffic noise levels were modeled with RD-77-108 and are measured at 100 feet from the roadway centerline. Refer to Appendix 11.4, *Noise Data*, for RD-77-108 modeling sheets.
2. Conservatively assumes 50 percent of traffic from 30th Street West (Avenue J to Avenue L) would be redistributed entirely along each roadway segment listed.

Source: City of Lancaster, *City of Lancaster ADT Map*, https://www.cityoflancasterca.org/home/showpublisheddocument/41344/637141754835800000, accessed October 20, 2021.

As shown in Table 5.12-6, the project's potential traffic redistribution noise levels would not exceed the 3.0 dB increase threshold along any adjacent roadway segments as a result of lane reductions along 30th Street West (Avenue J to Avenue L). As previously discussed, the potential project redistribution traffic volumes conservatively assumes 50 percent (i.e., 6,856 trips) of existing ADTs along 30th Street West (Avenue J to Avenue L) would be redistributed entirely to each adjacent roadway (i.e., Avenue I, Avenue J, Lancaster Boulevard, Avenue K, Avenue L, and Avenue M). In reality, traffic redistribution would occur on multiple roadways and would not be concentrated on one roadway segment as modeled in Table 5.12-6. As summarized in this analysis, traffic redistribution along adjacent roadways as a result of lane reduction VMT improvement projects would not double existing traffic volumes and therefore, would not cause a perceptible increase in ambient noise levels (i.e., 3.0 dB). Notwithstanding, all future transportation improvements, including single improvements initiated by the City and those implemented as part of development projects, would be subject to

future CEQA analysis on a project-by-project basis as the extent of impacts become known through the design process. Further, the transportation improvements would be required to implement any required mitigation measures on a project-by-project basis, as applicable, pursuant to CEQA provisions. Impacts would be less than significant in this regard.

Stationary Sources

Stationary noise sources are generally associated with residential, commercial, and industrial developments involving mechanical equipment, loading areas, parking areas, heating, and ventilation units, etc. Due to the scope and nature of the proposed project (VMT-reducing transportation improvements), no long-term stationary noise impacts are anticipated to occur. No noise-generating stationary operations are anticipated. Therefore, the proposed project would result in less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.12.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

- **CONSTRUCTION-RELATED ACTIVITIES WITHIN THE PROJECT AREA COULD RESULT IN SIGNIFICANT TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.**

Impact Analysis: Construction activities associated with the proposed project and cumulative projects may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. As previously discussed, future VMT-reducing transportation improvements within the City would generate noise during construction activities. However, all future improvements would undergo environmental review under CEQA to evaluate project-specific construction noise impacts and identify any required mitigation. Further, implementation of Mitigation Measure NOI-1 would ensure BMPs related to construction noise are implemented to further reduce such impacts. Future construction activities associated with cumulative development projects in accordance with the General Plan would also be required to comply with the Municipal Code and incorporate mitigation measures on a project-by-project basis, as applicable, to reduce construction noise pursuant to CEQA provisions. Therefore, the project's contribution to cumulative noise impacts would be less than significant with implementation of Mitigation Measure NOI-1.

Mitigation Measures: Refer to Mitigation Measure NOI-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

VIBRATION IMPACTS

- **PROJECT IMPLEMENTATION COULD RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS AND STRUCTURES.**

Impact Analysis: As discussed above, project-related construction and operational activities would not generate groundborne vibration on-site above the significance criteria (i.e. 0.2 in-per-second PPV threshold as established by Caltrans) with implementation of Mitigation Measure NOI-2. Groundborne vibration generated from cumulative projects developed in accordance with the General Plan would be required to undergo environmental review under CEQA to determine project-specific impacts and any required mitigation measures on a project-by-project basis. Therefore, the project's contribution to cumulative vibration impacts would be less than significant with implementation of Mitigation Measure NOI-2.

Mitigation Measures: Refer to Mitigation Measure NOI-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LONG-TERM OPERATIONAL NOISE IMPACTS

- **THE PROPOSED PROJECT COULD RESULT IN A SIGNIFICANT INCREASE IN TRAFFIC AND LONG-TERM STATIONARY AMBIENT NOISE LEVELS.**

Impact Analysis:

Mobile Noise

As discussed above, the project's potential traffic redistribution noise levels would not exceed the established significance criteria (i.e., 3.0 dB increase and exceedance of 65 dBA CNEL). Traffic noise generated from cumulative development projects would be required to implement any required mitigation measures on a project-by-project basis, as applicable, pursuant to CEQA provisions. Therefore, the proposed project, in combination with cumulative traffic noise levels, would result in less than significant impacts.

Stationary Noise

Although cumulative development could occur in proximity to future transportation improvements implemented under the proposed project, the proposed transportation improvements would not involve stationary noise sources. Further, each cumulative project would require separate discretionary approval and CEQA analysis, which would address potential noise impacts and identify necessary attenuation measures, where appropriate. Additionally, as noise dissipates as it travels away from its

source, noise impacts from stationary sources would be limited to each of the respective sites and their vicinities. Thus, the project and any cumulative development in the project vicinity are not anticipated to result in a significant cumulative impact. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.12.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to noise have been identified.

5.13 Utilities and Service Systems

5.13 UTILITIES AND SERVICE SYSTEMS

This section identifies the existing utilities and service systems in the City and provides an analysis of potential impacts that may result from project implementation. Existing baseline conditions and characteristics, an analysis of the potential project impacts, and appropriate mitigation measures to reduce potential impacts to the extent feasible for those impacts determined to be significant, if any, are described.

5.13.1 EXISTING SETTING

WATER

The Antelope Valley is located in a desert environment and underlain by a closed groundwater basin. Water service to the City is provided by numerous retail water agencies with all water provided from either imported water from the Antelope Valley-East Kern Water Agency (AVEK), groundwater, or a combination. The largest purveyor serving the City is the Los Angeles County Waterworks District 40 (LACWD 40); refer to General Plan MEA Figure 10.1-2, *Regional Water Facilities*. Given that LACWD 40 provides water services to most of the City, information regarding LACWD 40's existing and planned water supply sources is provided below.

Imported Water

As discussed in the Los Angeles County Waterworks Districts' *2020 Urban Water Management Plan for Los Angeles County Waterworks District No. 40 Antelope Valley* (2020 UWMP), LACWD 40 uses both imported water (purchased from AVEK) and groundwater as its primary water supply sources. Currently, AVEK has an average allocation for purchasing up to 144,844 acre-feet per year (AFY) from the State Water Project (SWP). To maximize the use of its SWP supplies, AVEK has developed and is planning several groundwater banks, including the Westside Water Bank, Antelope Valley Water Bank, and the Water Supply Stabilization Project. AVEK has also entered into various water transfer/exchange programs with other SWP contractors. Of AVEK's 144,844 AFY allocation from the SWP, LACWD 40 typically purchases about 70 percent of that volume, which is approximately 58,800 AFY.

Table 5.13-1, *LACWD 40 Current and Projected Water Supplies*, summarizes LACWD 40's current and projected water supply sources and amounts from 2025 through 2045. As shown, in addition to imported water from AVEK and groundwater, additional purchased/imported water (from a new supply or developer fees) and recycled water are also supply sources for LACWD 40.

Table 5.13-1
LACWD 40 Current and Projected Water Supplies

Water Supply	2020 (actual)	2025	2030	2035	2040	2045
Purchased Water (from AVEK)	31,552	57,300	55,800	54,200	52,700	52,700
Groundwater (from Antelope Valley Groundwater Basin)	14,266	23,298	23,298	23,298	23,298	23,298
Purchased or Imported Water (from new supply/developer fees)	0	1,733	1,733	1,733	1,733	1,733
Recycled Water	361	764	902	1,102	1,302	1,302
Total Water Supplies	**46,179**	**83,095**	**80,831**	**80,333**	**79,033**	**79,033**

Notes:
1 All units are in acre-feet per year (AFY).
2. New Supply refers to new supply from new development.

Source: Los Angeles County Waterworks Districts, *2020 Urban Water Management Plan for Los Angeles County Waterworks District No. 40,* October 2021.

Groundwater

The LACWD 40 relies on the Antelope Valley Groundwater Basin for its groundwater supplies. The Antelope Valley Groundwater Basin is a large, topographically closed, alluvial basin with an estimated total storage capacity of about 68 million acre-feet. The basin is recharged principally by deep percolation of precipitation and runoff from the surrounding mountains and hills. The Antelope Valley Groundwater Basin does not have an associated groundwater sustainability plan and is not identified as being in overdraft but has had subsidence occur.

In December 2015, the Superior Court of California (Court), Santa Clara County, entered a judgment and physical solution in the *Antelope Valley Groundwater Cases* (2015). Based on the Court's findings that the Antelope Valley Groundwater Basin is in overdraft. As of 2020, the groundwater adjudication judgment provides non-overlying production rights of 6,789 acre-feet, approximately 3,500 acre-feet of unused federal reserve rights, and return flows equivalent to 39 percent of LACWD 40's five-year average of purchased SWP water supply (39 percent of 26,657 acre-feet or 10,400 acre-feet). LACWD 40 also has the right to lease 2,600 acre-feet of groundwater rights from AVEK, for a total of 23,289 acre-feet of groundwater available to LACWD 40.

Water Demand

LACWD currently provides water to 58,607 service connections, including residential, commercial, industrial, institutional/governmental, and other uses. Table 5.13-2, *LACWD Current and Projected Water Demand*, summarizes LACWD's current and total water demand projections through 2045.

Table 5.13-2
LACWD Current and Projected Water Demand

Water Demand	2020 (actual)	2025	2030	2035	2040	2045
Potable and Raw Water	45,818	54,400	57,100	60,000	63,100	66,300
Recycled Water	362	764	902	1,102	1,302	1,302
Total Water Demand	**46,180**	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**

Note: All units are in acre-feet per year.
Projected water demand for 2020 through 2045 reflect future water committed for development and reflect average normal water year demand before taking into consideration savings from water conservation.

Source: Los Angeles County Waterworks Districts, *2020 Urban Water Management Plan for Los Angeles County Waterworks District No. 40,* October 2021.

WASTEWATER

Collection, treatment, and disposal of wastewater within the City and adjacent unincorporated areas are under the jurisdiction of the County of Los Angeles Sanitation District No. 14 (District No. 14). District No. 14 owns and maintains the trunk sewers and Lancaster Wastewater Reclamation Plant (LWRP), which convey and treat wastewater generated by residential, commercial, and industrial areas of the City, as well as portions of the City of Palmdale and unincorporated Los Angeles County. Local sewer collection is provided by the small diameter pipelines owned by the City of Lancaster.

Wastewater generated within the City initially flows through the City's local sewer pipelines owned and maintained by the City. At the locations of significant flow confluence, connection is made with the regional trunk sewer pipelines owned and operated by District No. 14. The District No. 14 trunk main network consists of approximately 64 miles of pipeline. Trunk sewer pipelines 24-inches in diameter or smaller are usually constructed of vitrified clay pipe. Larger trunk sewers are typically reinforced concrete pipes. District No. 14 checks the capacity and physical condition of the pipeline periodically to determine if repairs or hydraulic relief is necessary.

The regional trunk sewer pipelines then convey wastewater flows to the LWRP. Currently, the LWRP provides primary, secondary, and tertiary treatment and has a design capacity of 18 million gallons of wastewater per day (MGD).[1] LWRP processes an average flow of approximately 12.9 mgd.[2]

LWRP also utilizes treated wastewater as recycled water for landscape irrigation and other municipal and industrial purposes in the City, and to maintain water levels at Apollo Lakes Regional Park and Piute Ponds. The remaining recycled water is used for irrigation of fodder crops.

[1] County of Los Angeles Sanitation Districts, *Lancaster Water Reclamation Plant*, https://www.lacsd.org/services/wastewater-sewage/facilities/lancaster-water-reclamation-plant, accessed October 19, 2021.

[2] City of Lancaster, *Avanti South Specific Plan Environmental Impact Report*, page 5.11-8, November 2017.

STORMWATER

Refer to Section 5.6, *Hydrology and Water Quality*, for a detailed discussion regarding drainage conditions within the City. There are a number of existing local and regional flood control facilities in the City, including channels, storm drains, and retention basins; refer to General Plan MEA Figure 10.3-1, *Existing City Flood Control Structures*.

Local streets are generally used to convey water runoff, which tends to flow in sheets over paved surfaces and collect in low-lying areas. In many areas City streets are designed to accommodate 10-year and/or 25-year storm flows within the right-of-way. However, there are several areas in the City experience recurring flood problems during rainy periods.

The City's established drainage pattern is an overland flow in a northerly direction through the City to Rosamond Dry Lake. The City and general area is subject to flooding. This is partially due the flat topography of the area, and partially due to the uncontrolled runoff from the San Gabriel and Sierra Pelona mountains to the south. The Antelope Valley drainage basin consists of alluvial fans extending north from these mountains to the dry lakebeds at Edwards Air Force Base. Natural tributaries within the City include the Amargosa Creek and Little Rock Creek. The basin has no natural outlet to the sea, which restricts the removal of runoff to percolation or evaporation.

Runoff typically flows north out of several major canyons, then spreads out and flows across the alluvial fans, eventually reaching the dry lake beds including Rogers, Rosamond, and Buckhorn all located northeast of the City. Storm flows in the undeveloped portions of the City are generally channeled through wide, north-south swales until intercepted by various flood control structures or natural creek beds. Much of the City is subject to sheet flow, resulting in the type of flooding in which water flows over large areas with depths of only a few inches.

SOLID WASTE

Waste Management is the exclusive provider of waste and recycling collection services to residents and businesses in the City.

The majority of the City's solid waste is admitted to two landfills, the Antelope Valley Public Landfill and the Lancaster Landfill and Recycling Center. These landfills are classified as major Class III landfills, which are permitted to accept only non-hazardous waste. Table 5.13-3, *Landfills Serving the City*, provides a summary of both facilities and their respective levels of capacity for solid waste.

Table 5.13-3
Landfills Serving the City

Landfill/Location	Amount Disposed by City in 2019 (tons per day)	Maximum Daily Throughput (tons per day)	Remaining Capacity (cubic yards)	Anticipated Closure Date
Antelope Valley Public Landfill 1200 West City Ranch Road Palmdale, CA 93551	38,525	5,548	17,911,225	4/1/2044
Lancaster Landfill and Recycling Center 600 East Avenue F Lancaster, CA 93535	88,749	5,100	14,514,648	3/1/2044
Total	**128,671**	--	**32,425,873**	--

Note: The following landfills received less than one percent (combined) of the City's solid waste and thus, were excluded from this table: Azusa Land Reclamation Co. Landfill, Chiquita Canyon Sanitary Landfill, El Sobrante Landfill, Frank R. Bowerman Sanitary LF, Olinda Alpha Landfill, Simi Valley Landfill and Recycling Center and Canyon City/County Landfill.

Sources:
1. California Department of Resources Recycling and Recovery, *SWIS Facility/Site Search*, https://www2.calrecycle.ca.gov/SolidWaste/Site/Search, accessed September 29, 2021.
2. California Department of Resources Recycling and Recovery, *Jurisdiction Disposal By Facility, Disposal during 2019 for Lancaster*, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, accessed September 29, 2021.

DRY UTILITIES

Electricity

Lancaster Choice Energy (LCE) is the City's locally-operated, locally-controlled electrical power provider. LCE was designed to offer residents and businesses within the City a viable alternative to traditional investor-owned utilities (e.g., Southern California Edison). LCE obtains electricity from a variety of generation sources. At a minimum, 35 percent of LCE's Clear Choice option comes from renewable sources. LCE's Smart Choice option provides electricity from 100 percent renewable sources. LCE rolled out to all City customers in 2015. Southern California Edison (SCE) continues to maintain the grid, provide customer service, and handle repairs, outages, and billing. Overall, LCE procures and generates electricity while SCE delivers the energy through existing infrastructure.

Natural Gas

Natural gas services in the City are provided by the Southern California Gas Company (SCG). The SCG's total service territory encompasses approximately 24,000 square miles throughout central and southern California.

SCG maintains an extensive supply network within the City. Natural gas service lines range in size from two- to six-inch delivery mains. The main 30-inch supply line to the Antelope Valley comes from the south end of the valley, from Palmdale off of Avenue S. SCG has an eight-inch supply line along Division Street, flowing south to north, and a 10-inch supply line along Avenue H. Six-inch supply

lines also runs within 10th Street West, 40th Street East, and Avenue L. A 10-inch supply line runs within Avenue I, extending from Division Street and flows west toward State Route 14.

Telecommunications

Telecommunication systems for telephones, internet, and cable television are serviced by Spectrum. Facilities are located above and below ground within private easements.

5.13.2 REGULATORY SETTING

WATER

Federal Level

Federal Safe Drinking Water Act of 1974

The Safe Drinking Water Act authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. The EPA, states, and water systems then work together to make sure that these standards are met. Originally, Safe Drinking Water Act focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap. The Safe Drinking Water Act applies to every public water system in the United States.

State Level

State of California Water Recycling Act

Enacted in 1991, the Water Recycling Act established water recycling as a State priority. The Water Recycling Act encourages municipal wastewater treatment districts to implement recycling programs to reduce local water demands.

California Code of Regulations, Title 22, Division 4, Chapter 3 Water Recycling Criteria

California regulates the wastewater treatment process and use of recycled water pursuant to California Code of Regulations, Title 22, Division 4, Chapter 3, *Water Recycling Criteria*. According to these regulations, recycled water to be used for irrigation of public areas must be filtered and disinfected to tertiary standards.

Urban Water Management Act

The Urban Water Management Plan Act was passed in 1983 and codified as Water Code Sections 10610 through 10657. Since its adoption in 1983, the Urban Water Management Plan Act has been

amended on several occasions. Some of the more notable amendments include an amendment in 2004, which required additional discussion of transfer and exchange opportunities, non-implemented demand management measures, and planned water supply projects. Also, in 2005, another amendment required water use projections (required by Water Code Section 10631) to include projected water use for single-family and multi-family residential housing needed for lower income households. In addition, Government Code Section 65589.7 was amended to require local governments to provide the adopted housing element to water and sewer providers. The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, to prepare and adopt, in accordance with prescribed requirements, an urban water management plan." Urban water suppliers must file these plans with the California Department of Water Resources every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill 11, the 2005 Urban Water Management Plan Act, incorporated water conservation initiatives, and a Water Shortage Contingency Plan as well.

Water Conservation Act of 2009

Water Code Sections 10800, *et seq*. creates a framework for future planning and actions by urban (and agricultural) water suppliers to reduce California's water use. The law requires urban water suppliers to reduce Statewide per capita water consumption by 20 percent by 2020. Additionally, the State is required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent by 2015. Each urban retail water supplier was required to develop water use targets and an interim water use target by July 1, 2011. Each urban retail water supplier was required, by July 2011, to include in their water management plan the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use.

Senate Bill 610

Water Code Sections 10610 to 10656 require water suppliers to prepare an UWMP to promote water demand management and efficient use in their service areas. UWMPs are included with the environmental document for specified projects.

Concerning water supply, the Water Code requires preparation of a Water Supply Assessment for certain projects.[3] The Water Code requires that a Water Supply Assessment be prepared for any "project" which would consist of one or more of the following:[4]

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;

[3] Water Code Sections 10910–10915.
[4] Water Code Section 10912(a).

- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified above; or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

Senate Bill 221

Senate Bill 221 (SB 221),[5] amended State law, effective January 1, 2002, to improve the link between information on water supply availability and land use at the tentative map preparation phase of a project. SB 610 and SB 221 are companion measures which seek to:

- Promote more collaborative planning between local water suppliers and cities and counties;
- Require detailed information regarding water availability be provided to city and county decision-makers prior to approval of specific large development projects;
- Require that this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects; and
- Recognize local control and decision making regarding the availability of water for projects and the approval of projects.

SB 221 pertains only to residential projects and establishes the relationship between the Water Supply Assessment prepared for a project and the project approval under the Subdivision Map Act.

Efficiency Standards

California Code of Regulations (CCR) Title 20 addresses Public Utilities and Energy and includes appliance efficiency standards that promote water conservation. The CBC (CCR Title 24) includes the

[5] Business and Professions Code Section 11010 and Government Code Section 66473.4.

California Plumbing Code (Part 5), which promotes water conservation. In addition, a number of California laws listed below require water-efficient plumbing fixtures in structures:

- CCR Title 20 Section 1604(g) establishes efficiency standards that give the maximum flow rate of all new showerheads, lavatory faucets, sink faucets, and tub spout diverters.
- CCR Title 20 Section 1606 prohibits the sale of fixtures that do not comply with established efficiency regulations.
- CCR Title 24 Sections 25352(i) and (j) address pipe insulation requirements, which can reduce water used before hot water reaches equipment or fixtures. Insulation of water-heating systems is also required.
- Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in virtually all buildings.

Local Level

Los Angeles County Waterworks 2020 Urban Water Management Plan for Los Angeles County Waterworks District No. 40 Antelope Valley

In compliance with Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act, LACWD 40 adopted its UWMP in October 2021. The UWMP outlines LACWD 40's existing and future water supplies and assesses LACWD's forecasted water demands and supply availability through 2045. The UWMP also includes a description of LACWD's service area, baseline and target updates for water demand per capita, water supplies, water supply reliability, and water conservation efforts.

City of Lancaster General Plan 2030

The Plan for the Natural Environment and the Plan for Municipal Services and Facilities in the General Plan includes objectives and policies related to the City's water demands. The following goals and policies are relevant to the proposed project:

Plan for the Natural Environment

Objective 3.1: Protect, maintain, and replenish groundwater supplies to meet present and future urban and rural needs.

Policy 3.1.1 Ensure that development does not adversely affect the groundwater basin.

Plan for Municipal Services and Facilities

Objective 15.1: Achieve and maintain the following levels of service:

Facility/Service	Performance Objective
Water Systems	Adequate fire flow as established by the County Fire Department; sufficient storage for emergency situations.

Policy 15.1.2: Cooperate with local water agencies to provide an adequate water supply system to meet the standards for domestic and emergency needs.

WASTEWATER

Federal Level

Federal Clean Water Act (33 USC Sections 1251, Et Seq.)

The Clean Water Act's (CWA) primary goals are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for the management of water quality and the control of pollution discharges; it provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, antidegradation policy, nonpoint-source discharge programs, and wetlands protection. The EPA has delegated the responsibility for administration of CWA portions to State and regional agencies. In California, the SWRCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality.

State Level

There are no State regulations directly applicable to wastewater treatment with respect to this project.

Local Level

Lancaster Sewer System Management Plan

The *Lancaster Sewer System Management Plan* (SSMP), last updated in October 2019, was prepared pursuant to SWRCB's Statewide General Waste Discharge Requirements and Monitoring and Reporting Program (GWDR) Order No. 2006-0003. SSMPs are State-mandated requirements for California public collection system agencies that own or operate sanitary sewer systems greater than one mile in length. The goals for these plans are to reduce Sanitary Sewer Overflows (SSOs), protect public health and environment, and improve the overall maintenance and management of sewer systems, including neighborhood lift stations. The City's SSMP includes a comprehensive assessment of its existing sewer system and its ability to accommodate existing and future wastewater collection needs.

City of Lancaster General Plan 2030

The Plan for the Natural Environment and the Plan for Municipal Services and Facilities in the General Plan includes objectives and policies to address the City's wastewater demands. The following goals and policies are relevant to the proposed project:

Plan for the Natural Environment

Objective 3.1: Protect, maintain, and replenish groundwater supplies to meet present and future urban and rural needs.

Policy 3.1.3: Encourage the use of recycled tertiary treated wastewater when possible.

Plan for Municipal Services and Facilities

Objective 15.1: Achieve and maintain the following levels of service:

Facility/Service	Performance Objective
Sanitary Sewers	Restricted flow only during peak day, peak hour conditions.
Sewage Treatment	Remain within the rated capacity of the treatment facility.

Policy 15.1.5: Ensure sufficient infrastructure is built and maintained to handle and treat wastewater discharge.

Lancaster Municipal Code

Municipal Code Chapter 15.64, *Development Impact Fees*, establishes an urban structure program for the adoption and administration of development impact fees by the City for the benefit of the citizens. Specifically, Municipal Code Section 15.64.080, *Sewage Treatment Improvements Fee*, requires all new developments to pay a Sewage Treatment Improvements Fee to mitigate additional burdens placed on the City's existing sewage treatment systems created by new development. The fee requires developments to pay their fair-share of the cost of certain capital improvements. The Sewage Treatment Improvements Fee provides funding for land acquisition, design and construction of sewage treatment plant improvements and expansions, wastewater interceptors, and other related improvements.

STORMWATER

Federal Level

Refer to Section 5.6.2, *Regulatory Setting*, for a discussion regarding all applicable Federal level regulations regarding stormwater.

State Level

Refer to Section 5.5.2 for a discussion regarding all applicable State level regulations regarding stormwater.

Local Level

Section 5.6 includes a discussion on all applicable local level regulations regarding stormwater. Nevertheless, the following discussion on local regulations and standards are specifically focused on impacts to stormwater as a utility service system.

City of Lancaster Master Plan of Drainage Update

The *City of Lancaster Master Plan of Drainage Update* (MPDU), prepared in May 2019 and revised December 3, 2020, provides an analysis of existing storm drain facilities within Lancaster. The goal of the MPDU is to provide recommendations on any flooding issues relating to existing storm drain facilities and propose new facilities to accommodate the anticipated drainage from ultimate condition. The MPDU also provides an updated drainage fee schedule, or the development impact fee per acre of residential development and per square foot of non-residential development to fund the identified storm drain facility improvements.

City of Lancaster Stormwater Management Plan

The City has been designated a regulated Small Municipal Separate Storm System (MS4) by the U.S. EPA pursuant to 40 CFR 122.322(a)(1). Therefore, the City is required to comply with the Phase II regulations of the National Pollutant Discharge Elimination System (NPDES). There are two options. One is to obtain an individual permit addressing specific compliance provisions and the other is to file a Notice of Intent (NOI) to comply with the State Water Resources Board Small MS4 General Permit. The City decided to file an NOI to comply with the General Permit in lieu of obtaining an individual permit. As such, the City submitted an NOI, Storm Water Management Program (SWMP) and a fee on March 7, 2003. On April 20, 2003, the NPDES General Permit No. CAS000004 was adopted. The *City of Lancaster Stormwater Management Plan*, revised August 2003, establishes ordinances, policies, procedures, and practices to manage and control the quality of stormwater runoff in the City.

Lancaster Municipal Code

Municipal Code Section 8.50.200, *Stormwater Management and Rainwater Retention*, establishes stormwater management practices or technical requirements for existing and/or new landscape that minimize runoff and increase rainwater retention and infiltration. Suggested BMPs are also outlined in the section.

Section 15.64.060, *Drainage/Flood Control Improvements Fee*, of the Municipal Code requires that all new development in the City pay a drainage/flood control improvements fee to offset impacts related to each new development's stormwater runoff.

Chapter 16.24, *Improvements, Dedications, and Reservations*, of the Municipal Code requires all improvements that are required by the conditions of a tentative map, by this chapter, or by any other City statute, ordinance or policy, to conform with the requirements within Chapter 16.24, including those outlines in Article II, *Drainage Facilities*, of this chapter. Specifically, Section 16.24.140, *Hydrology Study*, requires a hydrology study be submitted and approved prior to the filing of the final map. The hydrology study would verify that the proposed streets and existing downstream streets are designed to carry a 50-year storm, top-of-curb to top-of-curb, and 100-year storm within the right-of-way, among others. The anticipated flow through new developments and potential associated drainage problems would be mitigated through the installation of drainage structures such as culverts, storm drains, or other improvements in accordance with Municipal Code Section 16.24.150, *Mitigation of Storm and Nuisance Water Runoff*.

SOLID WASTE

Federal Level

Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (RCRA) of 1976 (Title 40 of the Code of Federal Regulations), Part 258 contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria. The Federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

State Level

California Integrated Waste Management Act of 1989 (AB 939)

The Integrated Solid Waste Management Act of 1989 (AB 939) (California Public Resources Code Section 40050 et seq.) established an integrated waste management system that focuses on source reduction, recycling, composting, and land disposal of waste. AB 939 requires every city and county in California to divert 50 percent of its waste from landfills whether through waste reduction, recycling, or other means. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates. Actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the County or show a plan to transform or divert its waste.

Assembly Bill 341

AB 341 (Chapter 476, Statutes of 2011) increased the Statewide solid waste diversion goal to 75 percent by 2020. The law also mandates recycling for commercial and multi-family residential land uses as well as school districts.

Assembly Bill 1826

Assembly Bill 1826 (AB 1826) (California Public Resources Code Sections 42649.8 et seq.) requires recycling of organic matter by businesses generating such wastes in amounts over certain thresholds. AB 1826 also requires that local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses and multi-family developments that consist of five or more units.

California Green Building Standards Code

Section 5.408, *Construction Waste Reduction, Disposal, and Recycling*, of the California Green Building Standards Code (CALGreen) (Title 24, California Code of Regulations, Part 11) requires at least 50 percent of nonhazardous construction and demolition waste from non-residential construction operations be recycled and/or salvaged for reuse. CALGreen is updated on a three-year cycle; the 2019 CALGreen took effect on January 1, 2020.

Local Level

City of Lancaster General Plan

The Plan for Municipal Services and Facilities in the General Plan includes objectives and policies to address solid waste within the City. The following goals and policies are relevant to the proposed project:

Plan for Municipal Services and Facilities

Objective 15.2: Minimize the negative impacts of solid waste disposal using a variety of methods including mitigating the disposal of waste from outside the Antelope Valley.

Policy 15.2.1: Consider the use of conversion technologies at appropriate facilities.

Lancaster Municipal Code

Municipal Code 13.16, *Refuse Collection and Disposal*, addresses waste collection and disposal within the City. The purpose of the Chapter is to promote the health, safety, and welfare of residents in Lancaster by establishing regulations governing the collection and disposal of refuse.

Municipal Code Chapter 13.17, *Requirements for the Collection and Recycling of Recyclable Materials and Collection and Organics Processing of Organic Material Generated from Commercial Facilities, Multi-Family Dwellings, and Special Events*, adopts the State-mandated policies regarding solid waste collection and disposal. These policies include the California Integrated Waste Management Act (AB 939), as amended by AB 341 and AB 1826, and any future bills amending the California Integrated Waste Management Act. The State assembly aims to increase the diversion of recyclable material and organic waste from landfill disposal, reduce greenhouse gas emissions, conserve water, energy and other

natural resources, and protect the environment. This Municipal Code chapter ensures Citywide compliance of State-mandated solid waste policies.

DRY UTILITIES

Federal Level

There are no Federal regulations directly applicable to dry utilities with respect to this project.

State Level

California Code of Regulations Title 24 – Electric Codes

CCR Title 24 refers to the California Building Code (CBC) and contains regulations and general construction building standards of State adopting agencies, including provisions discussing electricity and potential hazards arising from electric installations. Part 3 of the CBC refers to the California Electrical Code, which contains standards for the installation and maintenance for electric utility lines. Chapters 3 and 7, in particular, discuss the electricity installation standards for residential units.

Local Level

Lancaster Municipal Code

Municipal Code Chapter 15.12, *Electrical Code*, adopts by reference the 2019 California Electrical Code in its entirety. The California Electrical Code would constitute the electrical code regulations of the City.

5.13.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA Guidelines Appendix G contains the Environmental Checklist Form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects (refer to Impact Statements USS-1, USS-2, USS-3, and USS-5);

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years (refer to Impact Statement USS-1);

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (refer to Impact Statement USS-2);

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (refer to Impact Statement USS-4); and

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste? (refer to Impact Statement USS-4).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.13.4 IMPACTS AND MITIGATION MEASURES

WATER SUPPLY AND DISTRIBUTION

USS-1 PROJECT IMPLEMENTATION COULD REQUIRE OR RESULT IN THE CONSTRUCTION OF NEW WATER TREATMENT FACILITIES OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Impact Analysis: The proposed project would provide a funding mechanism for future VMT-reducing improvement projects in the City. These improvements would primarily be infrastructure improvements, and would not involve land use development (e.g., new residential or non-residential development). For example, development of widened sidewalks, multi-purpose paths, pedestrian refuge islands, etc. would not result in increased water demand upon project completion. Nominal water usage would be required during construction of the identified improvements. However, no operational water usage would occur. Overall, the proposed program itself would not result in any water demand and thus, would not require or result in the relocation or construction of new or expanded water infrastructure. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

WASTEWATER TREATMENT

USS-2 PROJECT IMPLEMENTATION COULD REQUIRE OR RESULT IN THE CONSTRUCTION OF NEW WASTEWATER TREATMENT FACILITIES OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Impact Analysis: Potential VMT-reducing improvements funded by the proposed program would primarily consist of individual infrastructure improvement projects and do not involve land

development. For example, potential improvements may include bus bulb-outs, bicycle lanes, roundabouts, traffic circles, and crosswalks, among others. Such improvements would not generate wastewater. Thus, the program and associated physical infrastructure improvements would not generate wastewater or require construction of new or expanded wastewater collection or treatment facilities. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

STORMWATER DRAINAGE FACILITIES

USS-3 FUTURE TRANSPORTATION IMPROVEMENTS FUNDED BY THE PROPOSED PROJECT COULD RESULT IN THE CONSTRUCTION OF NEW STORM WATER DRAINAGE FACILITIES OR THE EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Impact Analysis: Refer to Section 5.6, *Hydrology and Water Quality*, for a detailed discussion on the potential for the proposed project to create or contribute stormwater runoff that could exceed the capacity of existing or planned stormwater drainage systems.

As stated, the future transportation improvements funded by the proposed program would primarily be City-initiated infrastructure projects within or adjacent to existing rights-of-way. Some transportation improvements would be implemented as part of land development projects (e.g., sidewalks and gutters along a project frontage). In both circumstances, improvement projects would be required to undergo project-specific environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report). Additionally, future improvements would be required to comply with Federal, State and local regulations pertaining to stormwater drainage. Future projects would also be required to comply with the ordinances, policies, procedures, and practices detailed in the *City of Lancaster Stormwater Management Plan*, to manage and control the quality of stormwater runoff from the project site. Where applicable, future developments may also be required to prepare a hydrology study in accordance with Municipal Code Section 16.24.140, *Hydrology Study*, to ensure project-related runoff can be accommodated within existing and/or planned stormwater facilities. Overall, the proposed VMT Mitigation program itself would not generate stormwater runoff or result in the construction of new stormwater drainage facilities or the expansion of existing facilities. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SOLID WASTE GENERATION

USS-4 FUTURE TRANSPORTATION IMPROVEMENTS FUNDED BY THE PROPOSED PROJECT COULD BE SERVED BY EXISTING LANDFILLS AND COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

Impact Analysis: Future transportation improvements accommodated by the proposed program primarily involve transportation infrastructure improvements and thus, would not generate solid waste upon project completion. Construction activities may generate nominal amounts of construction waste from demolition, excavation, and/or grading activities and thus, would result in one-time construction-related solid waste. However, these activities would be nominal and short-term, and would not exceed the maximum daily throughput or remaining capacities of either the Antelope Valley Public Landfill or the Lancaster Landfill and Recycling Center. Thus, as proposed, the VMT Mitigation Program itself would not result in an increase in the overall amount of solid waste generated by the City and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

DRY UTILITIES

USS-5 FUTURE TRANSPORTATION IMPROVEMENTS FUNDED BY THE PROPOSED PROJECT COULD RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED DRY UTILITY FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Impact Analysis: Future transportation improvements accommodated by the proposed program would not result in increased demand for dry utility services, including electricity, natural gas, and telecommunication. As stated, no land uses are proposed and the funded improvements would be infrastructure improvements primarily within or adjacent to existing rights-of-way. It is acknowledged that new pedestrian traffic signals and rapid flashing beacons may be funded by the program and would require electricity during operations; however, electricity use would be minimal and would be adequately accommodated by LCE. Additionally, existing facilities, such as underground and aboveground electricity, natural gas, and telecommunication lines, could be impacted by future transportation improvements that encroach or require construction in the vicinity of existing lines, poles, and/or towers. Given that project-level details regarding each transportation improvement is not known at this programmatic level, future improvements would require separate environmental review under CEQA. Future projects would be evaluated on a project-specific level to conduct site-specific analysis and to identify any mitigation measures, as needed. Overall, the VMT Mitigation Program itself would not increase demand for dry utility services or result in the relocation or construction of new or expanded dry utility facilities. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than Significant Impact.

5.13.5 CUMULATIVE IMPACTS

CEQA Guidelines Section 15355 requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." The cumulative analysis below considers the proposed project's impacts in conjunction with future buildout of the General Plan; refer to Table 4-1, *General Plan 2030 – GPCAC Preferred Land Use Plan Alternative Buildout*.

WATER SUPPLY AND DISTRIBUTION

- **PROJECT IMPLEMENTATION, IN CONJUNCTION WITH CUMULATIVE DEVELOPMENT, COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WATER SUPPLY AND DISTRIBUTION.**

Impact Analysis: Cumulative projects developed in accordance with General Plan buildout would increase demand for water and could adversely impact existing water supply and facilities. However, cumulative projects would be required to comply with existing regulations pertaining to water supply and conveyance. If applicable, cumulative projects may be required to prepare a Water Supply Assessment to estimate project-specific water demands and to determine whether the applicable water purveyor can accommodate the project's demands. Similar to the potential transportation improvements associated with the VMT Mitigation Program, cumulative projects would also be required to undergo project-specific environmental review under CEQA and the City's discretionary review process. As concluded above, the proposed project would result in a less than significant impact in this regard and thus, would not cumulatively contribute towards potentially significant impacts in conjunction with related projects.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

WASTEWATER TREATMENT

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROGRAM AND CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WASTEWATER TREATMENT FACILITIES.**

Impact Analysis: Future cumulative projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine potential effects to wastewater treatment facilities. Additionally, similar to future transportation improvements funded by the proposed program,

cumulative projects would be required to comply with Federal and local regulations regarding wastewater treatment, including compliance with Municipal Code Section 15.64.080, *Sewage Treatment Improvements Fee*.

As stated, future transportation improvement projects would result in less than significant impacts to wastewater services and infrastructure, and would be required to undergo separate environmental review and conform with established regulatory requirements. Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

STORMWATER DRAINAGE FACILITIES

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROGRAM AND CUMULATIVE DEVELOPMENT COULD INCREASE DEMAND FOR STORMWATER DRAINAGE FACILITIES.**

Impact Analysis: Future cumulative projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine project-specific impacts to existing storm drainage facilities. Similar to future transportation improvements funded by the proposed program, cumulative projects would be required to comply with Federal, State, and local regulations and policies, including Municipal Code Section 16.24.140, *Hydrology Study*, which requires applicable projects to prepare a hydrology study to identify whether existing and/or planned stormwater facilities can adequately accommodate any increases in stormwater runoff generated by a project.

As stated, future transportation improvement projects would result in less than significant impacts to storm drainage facilities, and would be required to undergo separate environmental review and conform with established regulatory requirements. Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SOLID WASTE GENERATION

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROGRAM AND CUMULATIVE DEVELOPMENT COULD CREATE INCREASED DEMAND FOR SOLID WASTE GENERATION THAT COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS.**

Impact Analysis: Future cumulative development projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine project-specific impacts related to solid waste generation. Similar to future transportation improvements funded by the proposed program, cumulative projects would be required to comply with existing regulations and policies, including AB 939 and AB 341 (related to diverting solid waste from landfills), AB 1826 (related to recycling organic matter), CALGreen Section 5.408, *Construction Waste Reduction, Disposal, and Recycling* (related to recycling construction and demolition waste), and Municipal Code Chapter 13.17, *Requirements for the Collection and Recycling of Recyclable Materials and Collection and Organics Processing of Organic Material Generated from Commercial Facilities, Multi-Family Dwellings, and Special Events* (related to compliance with AB 939, AB 341, and AB 1826 at the local level).

As stated, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA and comply with existing regulations regarding solid waste. Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

DRY UTILITIES

- **FUTURE TRANSPORTATION IMPROVEMENTS IN ACCORDANCE WITH THE PROPOSED PROGRAM AND CUMULATIVE DEVELOPMENT COULD CREATE INCREASED DEMAND FOR DRY UTILITY SERVICES THAT COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS.**

Impact Analysis: Future cumulative projects developed in accordance with the General Plan would be required to undergo project-specific environmental review under CEQA and the City's discretionary review process to determine project-specific impacts to existing dry utilities. Similar to future transportation improvements funded by the proposed program, cumulative developments may increase demand for electricity, natural gas, and telecommunication services. However, cumulative projects would be required to undergo environmental review under CEQA to determine project-level impacts to dry utilities and to identify any required mitigation. Additionally, cumulative developments would be required to pay connection fees to LCE, SCG, and Spectrum to receive electricity, natural gas, and telecommunication services, respectively.

As stated, all future transportation improvements funded by the proposed program would be required to undergo separate environmental review under CEQA and comply with existing regulations regarding electricity. Thus, cumulative impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.13.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to utilities and service systems have been identified.

6.0 Other CEQA Considerations

6.0 OTHER CEQA CONSIDERATIONS

6.1 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

Pursuant to *CEQA Guidelines* Section 15126.2, the following is a discussion of short-term uses of the environment and the maintenance and enhancement of long-term productivity. If the proposed project is approved and implemented, a variety of short- and long-term impacts would occur on a local level. For example, future transportation improvements implemented in accordance with the proposed VMT Mitigation Program may temporarily impact adjacent uses from dust and noise during future construction activities. Short-term soil erosion may also occur during grading activities. There may also be an increase in emissions caused by grading and construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through mitigation cited in this EIR and through compliance with the established regulatory framework; refer to Section 5.0, *Environmental Analysis*, and Section 8.0, *Effects Found Not To Be Significant*.

Given the nature of the potential transportation improvements, such improvements would not result in any substantial long-term environmental consequences. The transportation improvements may include crosswalks, pedestrian refuge islands, traffic circles, roundabouts, widened sidewalks, pedestrian traffic signals, bicycle lanes, and multi-purpose paths, among others; refer to Table 3-1, *Potential VMT-Reducing Improvements*. Thus, no substantial long-term operational physical environmental impacts are anticipated upon completion of the anticipated improvements. Further, the intent of the proposed program is to reduce Citywide VMT. Thus, long-term implications of the project would result in beneficial impacts with regards to reduced VMT and associated air pollutant emissions, greenhouse gas emissions, mobile noise, and overall traffic volumes.

6.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

According to *CEQA Guidelines* Sections 15126(c) and 15126.2(c), an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. As stated in *CEQA Guidelines* Section 15126.2(d):

> *"Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely, Primary impacts and, particularly, secondary impacts [such as highway improvement which provides access to a previously inaccessible area] generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."*

The environmental impacts associated with implementation of the VMT Mitigation Program are analyzed in Section 5.0 and Section 8.0. Future transportation improvements implemented as single projects or as part of larger development projects would consume limited, slowly renewable, and non-renewable resources. This consumption would occur during each individual project's construction phase and would continue throughout its operational lifetime. Future development would require a commitment of resources including building materials; fuel and operational materials/resources; and transportation of goods and people to and from individual project sites. Construction would require the consumption of resources that are not renewable or which may renew so slowly as to be considered non-renewable. These resources include, but are not limited to, lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment.

Transportation improvements accommodated through the proposed project would consume resources similar to those currently consumed within the City (e.g., energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle trips, fossil fuels, and water). Fossil fuels would represent the primary energy source associated with construction activities, and the existing, finite supplies of these natural resources would be incrementally reduced. As stated, given the nature of the transportation improvements, no operational activities requiring the substantial consumption of natural resources are anticipated. While some transportation improvements, such as pedestrian crosswalk traffic signals or rapid flashing beacons, would require electricity for operations, the electricity use would be minimal. Nonetheless, the project's energy requirements under both construction and operations represent a long-term commitment of essentially non-renewable resources.

Additionally, future construction activities associated with future transportation improvements could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions; refer to Section 5.7, *Hazards and Hazardous Materials*. All potential demolition, grading, and excavation activities would be subject to the established regulatory framework to ensure that hazardous materials are not released into the environment. Compliance with the established regulatory framework and Mitigation Measure HAZ-1 would protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In conclusion, future development accommodated through project implementation would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these resource quantities for future generations or for other uses. It is noted that the continued use of such resources would be on a relatively small scale in a regional context. Although irreversible environmental changes would result from project implementation, such changes would not be considered significant given the limited scope and scale of the various VMT-reducing facilities that could be funded by the proposed project.

6.3 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires that an EIR analyze a project's growth inducing impacts. Specifically, *CEQA Guidelines* Section 15126.2(e) requires that an EIR:

> *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth [a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas]. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

In general, a project may foster spatial, economic, or population growth in a geographic area, if it meets any one of the following criteria:

- Removes an impediment to growth (e.g., establishes an essential public service and provision of new access to an area);
- Fosters economic expansion or growth (e.g., changes in revenue base and employment expansion);
- Fosters population growth (e.g., construction of additional housing or employment-generating land uses), either directly or indirectly;
- Establishes a precedent-setting action (e.g., an innovation, a change in zoning and general plan amendment approval); or
- Develops or encroaches on an isolated or adjacent area of open space (being distinct from an infill project).

Should a project meet any one of the above-listed criteria, it may be considered growth inducing under CEQA. Generally, growth inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth.

It is noted that while CEQA does require an EIR to "discuss the ways" a project could be growth inducing and "discuss the characteristics of some projects that may encourage…activities that could significantly affect the environment," CEQA does not require an EIR to predict (or speculate) specifically where such growth would occur, in what form it would occur, or when it would occur. Answering such questions would require speculation, which CEQA discourages; see *CEQA Guidelines* Section 15145, *Speculation*.

In accordance with the *CEQA Guidelines* and based on the above-listed criteria, the project's potential growth inducing impacts are analyzed below.

REMOVAL OF AN IMPEDIMENT TO GROWTH

Given the nature of future transportation improvements funded by the VMT Mitigation Program, such improvements would not significantly increase demands for public services (i.e., fire and police protection, schools, parks and recreational facilities, and libraries) or utility and service systems (i.e., water, wastewater, stormwater, and solid waste); refer to Section 5.13, *Utilities and Service Systems*, and Section 8.0, *Effects Found Not to Be Significant*. Overall, the project would not establish an essential public service that could remove an impediment to growth.

On the other hand, the transportation improvements could involve additional bicycle lanes, sidewalks, and multi-purpose paths, which would increase multimodal access to areas within the City previously accessible to only vehicles (to a large extent). Specifically, transportation improvements implemented outside of the City's central core would provide new multimodal access to less urbanized areas of Lancaster.

It is also acknowledged that the proposed program streamlines Senate Bill (SB) 743 compliance for development projects within the City. The program establishes a mitigation fee for development projects that exceed the City's VMT thresholds under CEQA, thereby removing a barrier to development within the City from a policy standpoint.

As such, implementation of the proposed project would remove an existing impediment to growth through the provision of new access to an area and establishment of a mitigation mechanism for future development projects.

ECONOMIC GROWTH

The potential transportation improvements that could be implemented by funding from the program would not result in economic growth within the City (e.g., changes in revenue base and employment expansion).

However, the program could indirectly result in economic growth. As previously discussed, the proposed program streamlines SB 743 compliance for development projects within the City that exceed the City's VMT thresholds under CEQA. Future development projects triggering potentially significant VMT impacts would be able to pay an impact fee to reduce such impacts to less than significant levels, thereby facilitating and expediting the project entitlement process. As such, the City is encouraging economic growth and land use development within Lancaster by streamlining the SB 743 compliance process for future developers.

POPULATION GROWTH

A project can induce population growth in an area either directly (i.e., by proposing new homes or businesses) or indirectly (i.e., through the extension of roads or other infrastructure). Future improvements funded by the project would be transportation improvements and would not result in residential or commercial development. Therefore, the proposed project would not directly induce population growth.

However, as discussed above, future transportation improvements could involve the extension of bicycle and pedestrian infrastructure and amenities in areas within the City previously accessible to only vehicles (to a large extent); refer to the 'Removal of an Impediment to Growth" section.

The program could also indirectly result in population growth by streamlining the SB 743 compliance process for future developments and thereby encouraging new development to occur. Future development projects within the City could involve new residential and/or non-residential development that could induce population growth in the City. Thus, the proposed project would induce indirect population growth.

PRECEDENT-SETTING ACTION

The project would not involve any innovation or change in the City's zoning and general plan amendment approval process. While the project establishes a mitigation program for future projects to utilize (if needed), all future transportation improvements, including those implemented as part of larger development projects, would be required to undergo separate environmental review under CEQA and the City's discretionary review process for land use and zoning consistency. As such, the project is not considered growth inducing with regards to establishing a precedent-setting action.

DEVELOPMENT OR ENCROACHMENT OF OPEN SPACE

The location of potential VMT-reducing transportation improvements are illustrated on Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*. As shown, transportation improvements would occur primarily within or adjacent to existing roadway rights-of-way and would not involve developing or encroaching into open space areas. No growth inducing impacts would occur in this regard.

SUMMARY

In summary, project implementation is considered growth inducing with respect to removing an impediment to growth and indirectly inducing economic and population growth. The project is not considered growth inducing with respect to development of a precedent-setting action or development or encroachment of open space.

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7.0 Alternatives to the Proposed Project

7.0 ALTERNATIVES TO THE PROPOSED PROJECT

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. CEQA Public Resources Code Section 21002.l(a) establishes the need to address alternatives in an Environmental Impact Report (EIR) by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is ... to identify alternatives to the project."

Direction regarding the definition of project alternatives is provided in the *CEQA Guidelines* as follows:

> *An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.*[1]

The *CEQA Guidelines* emphasize that the selection of project alternatives be based primarily on the ability to reduce significant effects relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."[2] The *CEQA Guidelines* further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.[3]

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. *CEQA Guidelines* Section 15126.6(f)(1) states that:

> *Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site ...*

Beyond these factors, *CEQA Guidelines* require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.[4] In addition, *CEQA Guidelines* Section 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. The range of potential alternatives to the proposed

1 *CEQA Guidelines Section 15126.6(a).*
2 *CEQA Guidelines Section 15126.6(b).*
3 *CEQA Guidelines Section 15126.6(f).*
4 *CEQA Guidelines Section 15126.6(e)(2).*

project shall also include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Among the factors that may be considered when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Only locations that would avoid or substantially lessen any of the project's significant effects need be considered for inclusion. An alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered.

Potential environmental impacts associated with the following alternatives are compared to the project's impacts:

- Alternative 1 – No Project Alternative; and
- Alternative 2 – Alternate Mitigation Fee Application Alternative.

These alternatives were selected based on their potential to implement certain components of the project, to accomplish some or most of the basic objectives of the project, and avoid or substantially lessen one or more of the proposed project's significant effects. For example, the No Project Alternative is considered to enable the decision-makers to compare the impacts of approving the project with the impacts of not approving the project. Throughout the following analysis, the alternatives' impacts are analyzed for each environmental issue area, as examined in Section 5.1, *Land Use and Planning*, through Section 5.13, *Utilities and Service Systems*, of this EIR. In this manner, each alternative can be compared to the project on an issue-by-issue basis. A table is included at the end of this section that provides an overview of the alternatives analyzed and a comparison of each alternative's impact in relation to the project. This section also identifies alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. Among the factors used to eliminate alternatives from detailed consideration include failure to meet most of the basic project objectives, infeasibility, or inability to avoid significant environmental impacts. Section 7.6, *"Environmentally Superior" Alternative*, identifies the "environmentally superior" alternative, as required by the *CEQA Guidelines*.

7.1 SUMMARY OF PROJECT OBJECTIVES

An EIR must only discuss in detail an alternative that is capable of feasibly attaining most of the basic objectives associated with the action, while at the same time avoiding or substantially lessening any of the significant effects associated with the proposed project. Below is a summary of the project objectives, as provided in Section 3.4, *Goals and Objectives*.

- Streamline the Senate Bill (SB) 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant vehicle miles traveled (VMT) impacts.

- Identify funding for future transportation demand management (TDM) strategies and VMT reducing projects within Lancaster to help reduce Citywide total VMT.

- Contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community with active, healthy, and livable spaces.

7.2 SUMMARY OF SIGNIFICANT IMPACTS

Pursuant to *CEQA Guidelines* Section 15126.6(a), an EIR shall describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. As detailed in Section 5.1 through Section 5.13 of this EIR, upon compliance with existing regulations and mitigation measures, project implementation would not result in any significant and unavoidable impacts with the exception of transportation impacts related to VMT as analyzed in Section 5.8, *Transportation*.

7.3 ALTERNATIVES CONSIDERED BUT REJECTED

In accordance with *CEQA Guidelines* Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to *CEQA Guidelines*, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative's failures to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts.

7.3.1 VMT-EFFICIENT LAND USE PLAN ALTERNATIVE

The VMT-Efficient Land Use Plan Alternative involves updating the existing General Plan Land Use Map to redesignate areas within the City predominantly designated as residential areas to employment-based land uses (e.g., mixed-use, commercial, office/professional, and industrial). The intent of updating the Land Use Map to accommodate more employment-based land uses is to attract new job-generating developments within the City and thereby reduce Citywide VMT. For example, redesignating existing Urban Residential (UR) uses in the eastern and western ends of the City to Mixed-Use (MU), Commercial (C), or Office/Professional (O/P) would help create jobs in housing-rich areas of the City and allow for shorter commutes and VMT by residents both living and working in Lancaster. Creating more jobs-rich areas throughout the City would theoretically expand the City's VMT-efficient areas and thus, reduce Citywide VMT. However, the VMT-Efficient Land Use Plan Alternative would involve a substantial overhaul of the City's existing Land Use Map and conflict with the existing and planned growth and character of Lancaster that is envisioned in the General Plan. This alternative would require a General Plan Amendment to update the Plan for Physical Development of the General Plan and associated Land Use Map. Further, the redesignation of parcels from residential to employment-based land uses would increase buildout of nonresidential development within the City and result in additional environmental impacts from new development beyond those generated by the proposed program. Additionally, the redesignation of residential uses to non-residential uses would conflict with the City's Housing Element and Regional Housing Needs Allocation (RHNA) requirement set by the California Department of Housing and Community

Development. Even though the VMT-Efficient Land Use Plan Alternative would expand the City's VMT-efficient areas, it would not ensure development occurs within the VMT-efficient areas and thus, would still result in significant and unavoidable VMT impacts from developments that occur on the outskirts of the City without feasible mitigation to reduce such impacts to less than significant levels. Thus, this alternative was considered but rejected from additional analysis.

7.3.2 ADDITIONAL VMT-REDUCING PROJECTS ALTERNATIVE

The VMT-reducing projects and transportation demand management (TDM) strategies to be funded by the proposed VMT Mitigation Program were identified from existing City planning documents, including the *Master Plan of Complete Streets* (June 26, 2018); *Lancaster TOD Zones* (adopted February 10, 2015, updated January 2020); *Safer Streets Action Plan* (January 2020); *Safe Routes to School Master Plan* (November 2016); and *Master Plan of Trails and Bikeways* (March 2012). Additionally, relevant and applicable TDM measures identified by the San Diego Association of Governments (SANDAG) and California Air Pollution Control Officers Association (CAPCOA) were also incorporated into the City's list of fundable improvements for the proposed program. Based on the City's assumptions and calculations, implementing all the identified VMT-reducing projects and TDM strategies would reduce Citywide VMT by approximately 6.8 percent.

The Additional VMT-Reducing Projects Alternative involves enhancing and expanding the City's list of VMT-reducing projects and TDM strategies to be funded by the mitigation program. The intent of this alternative is to fund more TDM strategies and VMT-reducing projects than currently identified and thereby further reduce Citywide VMT compared to the proposed project's 6.8-percent reduction. This would require the City to prepare new planning documents that identify other TDM strategies and projects relevant and feasible to the existing and planned development patterns for the City of Lancaster. While this alternative would theoretically reduce Citywide VMT more than the VMT Mitigation Program as currently proposed, this alternative would still result in significant and unavoidable VMT impacts due to the fact that only non-exempt projects are required to pay the fee and only for the VMT generated above the established threshold (i.e., there would be insufficient funding to construct the additional VMT-reducing improvements identified under this alternative). Thus, the Additional VMT-Reducing Projects Alternative was considered but rejected from further analysis.

7.3.3 ALL APPLICABLE FEE ALTERNATIVE

The All Applicable Fee Alternative would require all future development to pay into the mitigation program, regardless of if the development is located in a VMT-efficient or non VMT-efficient area of the City. The cost per VMT may be lower in VMT-efficient areas and higher in non VMT-efficient areas. Regardless, the intent of the All Applicable Fee Alternative is to hold all future development generating VMT responsible for the projected growth in Citywide VMT rather than only development in non VMT-efficient areas and, of that, only the VMT generated above the established threshold. This alternative would theoretically increase funds generated by the mitigation program and allow implementation of more VMT-reducing projects and TDM measures than the project as currently proposed and thus, further reduce Citywide VMT. However, similar to the Alternative Mitigation Fee Application Alternative, this alternative would more than likely disincentivize development from

occurring within the City due to the high costs. Further, given that it would be applicable to all future development, it would also disincentivize developers from locating their projects in existing VMT-efficient areas of the City. Thus, this alternative would deter development from occurring and would not enhance or expand existing VMT-efficient areas of the City. By deterring development, it would also reduce funding generated by the mitigation program and thus, not allow for the implementation of more VMT-reducing projects and TDM strategies that can reduce Citywide VMT.

Further, it is acknowledged that the City adopted the *Transportation Analysis Updates in Lancaster* (Lancaster Local Transportation Assessment Guidelines), prepared by Fehr & Peers and dated May 27, 2020, which closely follows the Governor's Office of Planning and Research (OPR) *Technical Advisory for Evaluating Transportation Impacts in CEQA* (OPR Technical Advisory), dated December 2018. The Lancaster Transportation Guidelines establishes VMT screening criteria that would exempt certain development projects from VMT analysis and thereby result in less than significant VMT impacts. Therefore, given that the All Applicable Fee Alternative would require all future development to pay into the mitigation program, regardless of if a project results in less than significant VMT impacts, this alternative would conflict with the VMT guidelines established in the Lancaster Transportation Guidelines and OPR Technical Advisory. Given the aforementioned reasons, this alternative was considered but rejected from additional analysis.

7.3.4 CONSTRUCTION TRIP VMT REDUCTION ALTERNATIVE

The Construction Trip VMT Reduction Alternative was developed in response to general concerns expressed during the NOP public review period. Generally, commenters requested that development projects utilize local hire and skilled and trained workforce to construct projects. Specifically, it was suggested that local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of a project site can reduce the length of construction worker trips and vendor trips, and thereby reduce VMT and associated greenhouse gas emissions and provide localized economic benefits.

As such, this alternative assumes the VMT Mitigation Program is not adopted and instead, the City adopts an ordinance requiring developers to hire a certain percentage of construction workers within 10 miles or less of the project site. The intent of this alternative is to reduce construction-related VMT to reduce Citywide VMT. While some development projects may require multi-year construction activities with construction workers traveling far distances, construction-related VMT is temporary and would cease upon project completion. Further, project-generated VMT analyzed under CEQA pursuant to Senate Bill 743 is tied to proposed land use(s) (e.g., residential, commercial, mixed-use, industrial) and the VMT generated during long-term operations of the land use(s) (i.e., the lifetime of the development). Neither the Lancaster Local Transportation Assessment Guidelines nor the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* recommend analyzing short-term construction VMT, nor do they cite or suggest any means of reducing construction-related VMT as it is a temporary condition. As such, this alternative would not eliminate or reduce the severity of any significant impact under CEQA.

Moreover, even in the hypothetical scenario that a short-term construction VMT impact were to occur, this alternative would still result in potentially significant VMT impacts without feasible VMT-

reducing mitigation measures. Without feasible mitigation to reduce potentially significant impacts to less than significant levels, the Construction Trip VMT Reduction Alternative would still result in significant and unavoidable VMT impacts. Thus, this alternative was considered but rejected from additional analysis.

7.4 NO PROJECT ALTERNATIVE

In accordance with the *CEQA Guidelines*, "the no project analysis shall discuss the existing conditions …, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."[5] The *CEQA Guidelines* continue to state that "in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained."[6] The No Project Alternative includes a discussion and analysis of the existing baseline conditions at the time the Notice of Preparation was published on September 10, 2021. The No Project scenario is described and analyzed to enable the decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

DESCRIPTION

Under the No Project Alternative, the VMT Mitigation Program would not be adopted. VMT-reducing transportation improvements currently identified in existing City planning documents as planned but unfunded would continue to be unfunded under this alternative. Thus, the identified improvements in Table 3-1, *Potential VMT-Reducing Improvements*, and Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*, would not be funded and implemented. The City would be required to separately identify funding from another source. Additionally, given that the program would not be adopted, a mitigation mechanism would not be established to assist future development with reducing potentially significant VMT impacts under CEQA. Similar to existing conditions, future developments that trigger significant VMT impacts under CEQA would be required to prepare Environmental Impact Reports and adopt statements of overriding consideration pursuant to CEQA Guidelines Section 15093, *Statement of Overriding Considerations*.

The following discussion evaluates the potential environmental impacts associated with the No Project Alternative, as compared to impacts from the proposed project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Planning

The proposed program would result in less than significant impacts with regards to land use and planning and would be consistent with applicable land use planning policies, including the General Plan, Municipal Code, and the Southern California Association of Governments' (SCAG) *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS).

[5] *CEQA Guidelines Section 15126.6(e)(2).*
[6] *CEQA Guidelines Section 15126.6(e)(3)(B).*

Under the No Project Alternative, the VMT Mitigation Program would not be adopted. Thus, no City discretionary approval to adopt the mitigation program would be required. CEQA-related VMT mitigation for future development projects would continue to occur similar to existing conditions and the identified VMT-reducing improvements in Table 3-1 would occur at a later date when alternative funding sources are identified. Therefore, no impacts would occur with regards to land use and planning.

Aesthetics/Light and Glare

While the program itself does not involve construction of VMT-reducing improvements in the City, it would provide funding for the improvements to occur in the form of a mitigation fee paid by developers. Therefore, without adoption of the program, the identified VMT-reducing projects would not have funding to be implemented and no improvements would occur as a result of the program. It is acknowledged that future VMT-reducing improvements could be implemented at a later date when alternative funding sources are identified. However, no impacts would occur with regards to aesthetics/light and glare under this alternative.

Biological Resources

As stated, given that the program would not be adopted, the identified VMT-reducing projects would not be funded and thus, no construction of such improvements would occur. Thus, the project's less than significant impacts with regards to biological resources would not occur.

Tribal and Cultural Resources

The identified VMT-reducing projects in Table 3-1 would not be constructed under the No Project Alternative given that the VMT Mitigation Program would not be adopted. Thus, the project's less than significant tribal and cultural resources impacts would not occur.

Geology and Soils

As stated, no funding would be generated under the No Project Alternative that could fund the implementation of the identified VMT-reducing improvements in the City. Thus, no construction activities would occur that could result in geology and soils impacts. The project's less than significant impact in this regard would not occur.

Hydrology and Water Quality

The VMT-reducing projects identified in Table 3-1 would not be implemented under this alternative. Thus, the project's less than significant hydrology and water quality impacts would not occur.

Hazards and Hazardous Materials

Given that no construction activities associated with the proposed program would occur, no potential for the routine transport, use, or disposal of hazardous materials or accidental conditions involving

hazardous materials would occur. The project's less than significant impacts would not occur under this alternative.

Transportation

The intent of the VMT Mitigation Program is to streamline the SB 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant VMT impacts and establish a funding mechanism to implement TDM strategies and VMT-reducing projects within Lancaster to help reduce Citywide total VMT. The proposed mitigation program would not be adopted under the No Project Alternative. Therefore, development projects would continue to mitigate their potentially significant VMT impacts with current mitigation methods (e.g., implementation of TDM measures or VMT-reducing improvements on-site). The identified VMT-reducing improvements would not be funded and thus, the City would not be able to reduce its Citywide VMT in this manner.

No construction activities would occur and thus, compared to the project's less than significant impacts, this alternative would have no impact with regards to conflicting with a program plan, ordinance, or policy addressing the circulation system, substantially increasing hazards due to a geometric design feature or incompatible uses, or resulting in inadequate emergency access. However, without an adopted VMT mitigation program that is able to provide feasible VMT-related mitigation measures to future development projects and also establish a funding mechanism to implement TDM strategies and VMT-reducing improvements within the City, this alternative would result in greater transportation impacts. The City would not have a mitigation program in place and future developments would be required to reduce VMT on a project-by-project basis, as feasible. Thus, the No Project Alternative would be environmentally inferior to the proposed project.

Air Quality

As stated, given that the program would not be adopted, the identified VMT-reducing projects would not be funded. Therefore, the improvements would not be constructed and no construction-related air quality emissions would be generated. However, the intent of the proposed program is to implement the identified VMT-reducing projects and reduce Citywide VMT and associated air quality emissions from mobile sources (i.e., vehicles). The program would provide a planned approach to reduce VMT (and associated vehicular emissions) on a Citywide context. Thus, air quality impacts associated with the No Project Alternative would be greater than the proposed project and the alternative would be environmentally inferior.

Greenhouse Gas Emissions

The identified VMT-reducing improvements and TDM measures would indirectly reduce greenhouse gas (GHG) emissions associated with vehicles given that these improvements would help reduce Citywide VMT. Therefore, while no construction-related GHG emissions would be generated under this alternative, it would not help reduce GHG emissions on a long-term scale nor within a Citywide context. Therefore, the overall GHG impacts associated with the No Project Alternative would be

greater than the proposed project. This alternative would be environmentally inferior to the proposed program.

Energy

As stated, no funding would be generated under the No Project Alternative that could fund the implementation of the identified VMT-reducing improvements in the City. Thus, no construction activities would occur that could result in energy consumption. However, as stated, the intent of the program is to implement VMT-reducing improvements that help reduce Citywide VMT and thus, reduce associated energy consumption from vehicular travel. Thus, this alternative would be environmentally inferior to the proposed program.

Noise

The identified VMT-reducing projects in Table 3-1 would not be constructed under the No Project Alternative given that the VMT Mitigation Program would not be adopted. Thus, no construction-related noise would be generated under this alternative. The project's less than significant impacts related to noise would not occur.

Utilities and Service Systems

The TDM measures and VMT-reducing projects identified to be funded by the program would not be implemented under this alternative. Therefore, construction-related impacts to utilities and service systems, including water, wastewater, storm drains, and solid waste, would not occur.

RELATIONSHIP TO THE PROJECT OBJECTIVES

As detailed in Table 7-1, *No Project Alternative and Project Objectives*, the No Project Alternative would not achieve any of the project's basic objectives.

Table 7-1
No Project Alternative and Project Objectives

Project Objective	Discussion
1. Streamline the SB 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant VMT impacts.	Given that the VMT Mitigation Program would not be adopted, this alternative would not assist in streamlining the SB 743 process and would not provide a mitigation mechanism for development projects to reduce their potentially significant VMT related impacts. Thus, the No Project Alternative would not meet this project objective.
2. Identify funding for future TDM strategies and VMT-reducing projects within Lancaster to help reduce Citywide total VMT.	The transportation improvements in Table 3-1 are unfunded but planned infrastructure improvements identified from existing City planning documents that have the potential to reduce Citywide VMT. The VMT Mitigation Program would not be adopted and thus, no funds would be collected to pay for the identified TDM strategies and VMT-reducing projects. Thus, this alternative would not assist the City in identifying funding for such infrastructure improvements.

Table 7-1 [cont'd]
No Project Alternative and Project Objectives

Project Objective	Discussion
3. Contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community with active, healthy, and livable spaces.	The VMT Mitigation Program would not be adopted under this alternative and thus, no program would be established that would contribute towards making Lancaster an active and multimodal community.

7.5 ALTERNATE MITIGATION FEE APPLICATION ALTERNATIVE

The VMT Mitigation Program, as currently proposed, requires non-exempt projects to pay a cost per VMT generated above the established threshold. The Alternate Mitigation Fee Calculation Alternative would apply the cost per VMT fee on all VMT generated by non-exempt projects, rather than only the VMT generated above the established threshold. The intent of this alternative is to increase the funds generated by the mitigation program to be able to fund and guarantee the implementation of a higher number of identified capital projects and programmatic TDM measures compared to the program as currently proposed and thus, further reduce Citywide VMT.

The following discussion evaluates the potential environmental impacts associated with the Alternate Mitigation Fee Application Alternative, as compared to impacts from the proposed project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Planning

This alternative would result in similar land use impacts as the proposed project. While the application of the mitigation fee would differ, the program itself would similarly require City discretionary approval to adopt the program. Similar to the proposed project, this alternative would be consistent with applicable land use planning policies, including the General Plan, Municipal Code, and SCAG's 2020-2045 RTP/SCS. Overall, impacts associated with the Alternate Mitigation Fee Calculation Alternative would be similar to the project.

Aesthetics/Light and Glare

While the mitigation fee would be applicable to all VMT generated by non-exempt projects (compared to only the VMT generated above the established threshold under the proposed project), this alternative would fund and allow the implementation of the same list of identified TDM measures and VMT-reducing transportation improvements in the City; refer to Table 3-1. Thus, this alternative would result in similar less than significant impacts with regards to aesthetics and light and glare.

Biological Resources

As stated, this alternative would apply the mitigation fee to non-exempt projects slightly differently than the proposed project but would result in the implementation of the same identified VMT-reducing projects. Thus, the project's less than significant impacts regarding biological resources would similarly occur under this alternative.

Tribal and Cultural Resources

Given that the VMT-reducing improvements to be funded by the proposed project would be the same as those funded by the Alternate Mitigation Fee Calculation Alternative, construction-related impacts to tribal and cultural resources would be similar under both scenarios.

Geology and Soils

This alternative would fund and allow the implementation of the same list of identified TDM measures and VMT-reducing transportation improvements in the City. Thus, geology and soils impacts associated with the transportation improvements would be similar to the proposed project and less than significant.

Hydrology and Water Quality

While the application of the mitigation fee would slightly differ, the identified transportation improvements would be the same. Thus, hydrology and water quality impacts associated with the VMT-reducing projects would be similar to the proposed project under this alternative.

Hazards and Hazardous Materials

The same transportation improvements would be implemented under the proposed project and this alternative. Therefore, construction-related impacts related to hazards and hazardous materials would be similar under both scenarios and result in less than significant impacts.

Transportation

The Alternate Mitigation Fee Calculation Alternative would theoretically increase funds generated by the mitigation program and thus, be able to guarantee the implementation of the identified TDM measures and VMT-reducing improvements more quickly than the proposed project. Therefore, this alternative would theoretically reduce Citywide VMT more than the proposed project. However, similar to the project, potentially significant VMT impacts could still occur on a project-level. It cannot be determined with certainty whether improvements would be implemented at the time a future development project's VMT impacts occur (e.g., at project opening), and whether those impacts would be mitigated to a less than significant level. Additionally, it is acknowledged that since only non-exempt projects would pay into the mitigation program, the impact fee would still not be able to fully fund all the identified TDM measures and VMT-reducing improvements within the City. Given the speculative timing of when the TDM measures and transportation improvements would be implemented and the

fact that the mitigation program cannot fully fund all identified improvements, no feasible mitigation is available at this time to reduce impacts associated with this alternative to less than significant levels. As such, similar to the proposed project, VMT impacts in this regard would remain significant and unavoidable.

It is acknowledged that while this alternative would theoretically increase funds generated by the program, requiring non-exempt development projects to pay for all VMT generated would likely make many projects infeasible from an economic standpoint. Thus, the likelihood of increasing funds to implement more VMT-reducing transportation improvements within the City under this alternative is unrealistic.

Air Quality

Theoretically, this alternative would increase the funds generated by the mitigation program and be able to implement TDM measures and VMT-reducing improvements more quickly within the City compared to the proposed project. Thus, such improvements would further reduce Citywide VMT and indirectly further reduce mobile source air quality emissions. This alternative would be environmentally superior to the proposed project in this regard.

Greenhouse Gas Emissions

As stated, this alternative would theoretically increase funds to implement VMT-reducing transportation improvements more quickly than the project. Therefore, GHG emissions generated by vehicles traveling within Lancaster would proportionally be reduced if Citywide VMT is further reduced. As such, this alternative would be environmentally superior to the proposed project in this regard.

Energy

Given that this alternative would increase funds generated by the program and be able to implement more VMT-reducing improvements within the City at a quicker pace than the project, Citywide VMT and energy consumption associated with vehicular travel would also reduce at a greater pace. Therefore, construction-related energy consumption would be reduced and this alternative would be environmentally superior to the proposed project.

Noise

Construction-related noise impacts associated with the VMT-reducing transportation improvements would similarly occur under the proposed project and Alternative Mitigation Fee Calculation Alternative. However, given that this alternative would guarantee VMT-reducing improvements are funded and implemented more quickly, Citywide VMT would also be reduced at a greater pace. A greater reduction in Citywide VMT would also proportionally reduce operational mobile noise from vehicular travel. Thus, this alternative would be environmentally superior to the proposed project.

Utilities and Service Systems

As stated, this alternative would apply the mitigation fee to non-exempt projects slightly differently than the proposed project but would result in the implementation of the same identified VMT-reducing projects. Thus, construction-related impacts to utilities and service systems, including water, wastewater, storm drains, and solid waste, would be similar to the proposed project under this alternative.

RELATIONSHIP TO THE PROJECT OBJECTIVES

The Alternate Mitigation Fee Application Alternative would achieve the project's basic objectives but not to the extent of the proposed project; refer to Table 7-2, *Alternate Mitigation Fee Application Alternative and Project Objectives*.

Table 7-2
Alternate Mitigation Fee Application Alternative and Project Objectives

Project Objective	Discussion
1. Streamline the SB 743 compliance process for development projects by providing feasible mitigation options to reduce potentially significant VMT impacts.	Similar to the proposed program, the Alternate Mitigation Fee Application Alternative would help streamline the SB 743 compliance process for development projects. While the fee amount would be different under this alternative, payment of the fee towards the mitigation program would be a feasible mitigation option for developers to reduce their project's potentially significant VMT impacts. Thus, this alternative would meet this project objective.
2. Identify funding for future TDM strategies and VMT-reducing projects within Lancaster to help reduce Citywide total VMT.	Compared to the proposed project, this alternative would theoretically provide more funding for future TDM strategies and VMT-reducing projects given that the fee would apply to all VMT generated by non-exempt projects rather than only the VMT generated above the established threshold. However, it is acknowledged that requiring developers to pay for all generated VMT would strongly discourage development from occurring within the City. Thus, in reality, this alternative would disincentivize development from occurring and therefore, reduce funding generated by the mitigation program compared to the proposed project. This alternative would meet this project objective while not to the extent of the proposed project.
3. Contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community with active, healthy, and livable spaces.	The Alternate Mitigation Fee Application Alternative would establish a funding mechanism for future TDM strategies and VMT-reducing projects and thus, would contribute towards making Lancaster a pedestrian-, bicycle-, and transit-oriented community. However, as stated above, this alternative would likely discourage development from occurring given the high cost of the fee for non-exempt projects. Thus, this alternative would meet this project objective but not to the extent of the proposed project.

7.6 "ENVIRONMENTALLY SUPERIOR" ALTERNATIVE

Table 7-3, *Comparison of Alternatives*, summarizes the comparative analysis presented above (i.e., the alternatives compared to the proposed project).

Table 7-3
Comparison of Alternatives

Sections	No Project Alternative	Alternate Mitigation Fee Application Alternative
Land Use and Planning	⮟	=
Aesthetics/Light and Glare	⮟	=
Biological Resources	⮟	=
Tribal and Cultural Resources	⮟	=
Geology and Soils	⮟	=
Hydrology and Water Quality	⮟	=
Hazards and Hazardous Materials	⮟	=
Transportation	⮝	⮟
Air Quality	⮝	⮟
Greenhouse Gas Emissions	⮝	⮟
Energy	⮝	⮟
Noise	⮟	⮟
Utilities and Service Systems	⮟	=

⮝ Indicates an impact that is greater than the proposed project (environmentally inferior).
⮟ Indicates an impact that is less than the proposed project (environmentally superior).
= Indicates an impact that is equal to the proposed project (neither environmentally superior nor inferior).

Review of Table 7-3 indicates the No Project Alternative is the environmentally superior alternative, as it would avoid or lessen most of the project's environmental impacts. According to *CEQA Guidelines* Section 15126.6(e), "if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Accordingly, the Alternate Mitigation Fee Application Alternative is considered environmentally superior to the proposed project. The Alternate Mitigation Fee Application Alternative would be environmentally superior to the proposed project for five topical areas (transportation, air quality, and greenhouse gas emissions, energy, and noise) and would result in similar environmental impacts to the remaining topical areas; refer to Table 7-3.

Similar to the proposed program, the Alternate Mitigation Fee Application Alternative would help streamline the SB 743 compliance process for development projects (Project Objective 1). While the fee amount would be different under this alternative, payment of the fee towards the mitigation program would be a feasible mitigation option for developers to reduce their project's potentially significant VMT impacts.

However, while this alternative would theoretically increase funds generated by the mitigation program, it is the City's understanding of its development community that the high cost of the fee would strongly discourage development from occurring within the City. Thus, in reality, by disincentivizing development from occurring, this alternative would reduce funding generated by the mitigation program compared to the proposed project and thus, would not meet Project Objectives 2 and 3 to the extent of the proposed project.

Overall, the Alternate Mitigation Fee Application Alternative would only meet one of the three project objectives.

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8.0 Effects Found Not To Be Significant

8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

During preparation of this EIR, the City of Lancaster (City) conducted an analysis of the proposed project's effect on specific environmental topic areas, included as part of the Environmental Checklist form presented in *CEQA Guidelines* Appendix G. Through the course of this evaluation, certain impacts were identified as "less than significant" or "no impact" due to the inability of a project of this scope to yield such impacts or the absence of project characteristics producing effects of this type. These effects are not required to be included in the EIR's primary environmental analysis sections (Section 5.1 through 5.13). In accordance with *CEQA Guidelines* Section 15128, the following discussion includes a brief description of potential impacts found to be less than significant or result in no impact. The lettered analyses under each topical area directly correspond to their order in *CEQA Guidelines* Appendix G.

AESTHETICS. *Would the project:*

b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. According to the California Department of Transportation's California State Scenic Highway System Map, there are no officially designated or eligible State scenic highways within or near the City.[1] Thus, transportation improvements developed in accordance with the proposed program would not substantially damage scenic resources, including tress, rock outcroppings, or historic buildings within a State scenic highway. No impact would occur in this regard.

AGRICULTURE AND FORESTRY RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*

[1] California Department of Transportation, *California State Scenic Highway System Map*, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed November 15, 2021.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. According to the California Department of Conservation, some areas within the City areas are designated either Prime Farmland, Unique Farmland, or Farmland of Local Importance.[2] However, future transportation improvements implemented in accordance with the proposed VMT Mitigation Program would be located within or adjacent to existing rights-of-way and would not involve converting important farmland to non-agricultural uses. As such, no impact would occur in this regard.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The City does not have an existing zoning district for agricultural use. Additionally, according to the General Plan MEA, there are no Williamson Act contracts in effect within or near the City.[3] Thus, project implementation would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur in this regard.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The City does not have existing zoning districts for forest land, timberland, or timberland production. Thus, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur in this regard.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to response to Agriculture and Forestry Resources (c).

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Refer to responses to Agriculture and Forestry Resources (a) through (c).

BIOLOGICAL RESOURCES. *Would the project:*

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. The West Mojave Plan (WMP) is a Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) prepared by the U.S. Department of the Interior (DOI) and Bureau of Land Management (BLM) which covers approximately 9.3 million acres in the western portion of

[2] California Department of Conservation Farmland Mapping and Monitoring Program, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed September 22, 2021.

[3] City of Lancaster, *Lancaster General Plan 2030 Master Environmental Assessment*, page 16, April 2009.

the Mojave Desert, including parts of San Bernardino, Los Angeles, Kern, and Inyo Counties. The WMP provides a comprehensive strategy for conserving and protecting nearly 100 sensitive plants and animals and the natural communities which they inhabit. However, no other agencies adopted the HCP proposed in the WMP to cover their jurisdictions, including the City of Lancaster. Thus, the adopted plan only applies to BLM lands.

All future transportation improvements funded by the proposed program would occur within the City's jurisdiction. Given that the WMP only governs BLM lands, the project would not conflict with the provisions of the WMP and no impact would occur in this regard.

CULTURAL RESOURCES. *Would the project:*

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. The majority of future transportation improvements funded by the proposed program would occur within existing rights-of-way in developed areas of the City. As such, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. Nonetheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5 through 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the most likely descendant. If human remains are found during excavation, excavation must stop near the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with the aforementioned regulations, impacts related to the disturbance of human remains are less than significant.

GEOLOGY AND SOILS. *Would the project:*

a)(i) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. The City, like the rest of Southern California, is located within a seismically active margin between the North American and Pacific tectonic plates. Faults that have historically produced earthquakes or show evidence of movement within the past 11,000 years are known as "active faults." According to the California Geological Survey, no known active faults cross the City and no areas of

the City are located within a currently designated Alquist-Priolo Earthquake Fault Zone.[4] Therefore, the potential for surface rupture of a known active fault is considered very low. No impact would occur in this regard.

a)(iv) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. As indicated in the General Plan MEA, the southwest areas within the City directly below the north slopes of Quartz Hill and along the slopes of Portal Ridge are the only locations within the City that are susceptible to landslide hazards. Future VMT-reducing transportation improvements would primarily occur within or adjacent to existing rights-of-way in urbanized areas of the City and thus, would not occur in the landslide susceptible areas of Lancaster; refer to Exhibit 3-3, *Potential VMT-Reducing Improvement Locations*. Therefore, project implementation would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impact would occur in this regard.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Future transportation improvements would not generate wastewater that could require wastewater disposal systems or sewer systems. No impact would occur.

HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact. There are four airport facilities located in and around the City of Lancaster, including the Edwards Air Force Base (located at 305 East Popson Avenue in the community of Edwards), the General William J. Fox Airfield (located at 4725 William J Barnes Avenue in the City of Lancaster), the U.S. Air Force Plant 42 (located at 2501 East Avenue P in the City of Palmdale), and the Palmdale Regional Airport (located at 41000 20th Street East in the City of Palmdale). Both Edwards Air Force Base and U.S. Air Force Plant 42 are military facilities, while U.S. Air Force Plant 42 shares the same site and runways with the Palmdale Regional Airport. It is acknowledged that the Palmdale Regional Airport is not currently operational.

The proposed project would adopt the VMT Mitigation Program, which aims to fund TDM strategies and VMT-reducing projects within the City. The program does not involve development of any residential or nonresidential development that would introduce residents or workers within an airport land use plan area. Given the scope and nature of future transportation improvements associated with the proposed program, it is not anticipated that these transportation improvements would result in a

[4] California Geological Survey, *Earthquake Zones of Required Investigation*, https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed November 23, 2021.

safety hazard for people residing or working within the area. Impacts would be less than significant in this regard.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City's *Local Hazard Mitigation Plan* (LHMP) provides a comprehensive analysis of natural and human-caused hazards that threaten the City, with a focus on mitigation and reduction of risks. Each section of the LMHP provides information and resources to assist in understanding the region and hazard-related issues facing citizens, businesses, and the environment. The sections of the LHMP combine to create a document that guides the City's goal to reduce risk and prevent loss from future hazard events. Additionally, to be used in conjunction with the LMHP, the City's *Emergency Operations Plan* (EOP) is a flexible, multi-hazard document that addresses the City's planned response and short-term recovery to extraordinary emergency/disaster situations associated with natural disasters, technological incidents, and national security emergencies. The EOP does not address normal day-to-day emergencies or the established and routine procedures used in coping with such emergencies. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters that can generate unique situations requiring unusual responses. It is designed to include the City as part of the Los Angeles Operational Area, California Standardized Emergency Management System (SEMS), and National Incident Management System (NIMS). Moreover, the City Council adopted the updated General Plan Safety Element in June 2022, which provides the context to identify and understand hazards that could threaten the urban and rural areas of the community. The Safety Element presents the City's overall goals, policies, and action programs to facilitate resiliency.

The proposed program would fund future VMT-reducing transportation improvements within the City and would not result in any adverse alterations to vehicular circulation routes or obstruct public access along adjacent roadways. As discussed in Section 5.8, *Transportation*, future infrastructure improvements implemented in accordance with the proposed program would be required to comply with all applicable City codes and policies related to emergency access, including the California Fire Code and Municipal Code Title 15, *Buildings and Construction*. Future improvement projects would also be required to undergo separate environmental review under CEQA (e.g., preparation of a Categorical Exemption, Mitigated Negative Declaration, or Environmental Impact Report) to evaluate project-level impacts with regards to emergency access. Thus, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts in this regard would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. Refer to response to Wildfire (a).

HYDROLOGY AND WATER QUALITY. *Would the project:*

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The proposed VMT Mitigation Program would fund future transportation improvement projects, primarily within existing rights-of-way in urban areas of the City, that contribute towards reducing Citywide VMT. As shown in Table 3-1, *Potential VMT-Reducing Improvements*, potential transportation improvements include, but are not limited to, raised crosswalks, widened sidewalks, multi-purpose paths, and bus bulb-outs. As such, given the nature of such improvements, such the projects would not have the potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Further, all future transportation improvement projects associated with the proposed program would be required to undergo separate environmental review under CEQA to evaluate project- and site-specific hydrologic impacts. Future improvements would also be required to comply with all applicable Federal, State, and local regulations and requirements related to groundwater. As such, implementation of the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge in a manner that would impede sustainable groundwater management of the Antelope Valley Groundwater Basin. Impacts in this regard are less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact.

Flooding

Refer to Impact Statement HWQ-2 in Section 5.6, *Hydrology and Water Quality*.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. The City is located approximately 45 miles from the coastline. As such, no impacts would occur in this regard.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. Reservoirs, lakes, and/or storage tanks are located within the City and are capable of creating a seiche that could inundate areas where future transportation improvement projects are located. However, as stated, future improvements would primarily be ground level improvements along existing rights-of-way in urbanized areas of the City. Given the nature of the improvements, no pollutants would be released should a seiche occur. No impacts would occur in this regard.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a GSP. As discussed in Section 5.6, the project site is located within the Antelope Valley Groundwater Basin, which is ranked as a "very low" priority basin. Therefore, there is no groundwater sustainability plan established for the Antelope Valley Groundwater Basin. The project would not conflict with or obstruct a sustainable groundwater management plan in this regard.

The *Water Quality Control Plan for the Lahontan Region, North and South Basins* (Basin Plan) establishes water quality standards for ground and surface waters within the jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB), and is the basis for the Lahontan RWQCB's regulatory programs. The Basin Plan defines the beneficial uses, water quality objectives, implementation programs, and surveillance and monitoring programs for waters within the basin. As discussed throughout Section 5.6, implementation of the proposed program and associated future transportation improvements would not conflict with the Basin Plan. All future transportation improvement projects associated with the proposed program would be required to undergo separate environmental review and mitigate project- and site-specific hydrologic impacts as needed. Further, the project would not substantially deplete groundwater supplies or interfere with groundwater recharge; refer to response to Hydrology and Water Quality (b). As such, upon compliance with all applicable regulations, the proposed project is not anticipated to conflict with or obstruct implementation of the Basin Plan. Impacts would be less than significant in this regard.

LAND USE AND PLANNING. *Would the project:*

a) Physically divide an established community?

No Impact. The City is generally characterized by a pattern of low-density land uses (i.e., a mix of existing single- and multi-family residential, commercial, public, and institutional uses) from 70th Street West to 40th Street East and from Avenue F to Avenue N, with isolated areas of rural development surrounding the core (defined as 30th Street West to 20th Street East from Avenue I to Avenue L) of the City from 110th Street West to 110th Street East. The proposed project would adopt the VMT Mitigation Program, which aims to fund TDM strategies and VMT-reducing projects within the City; refer to Table 3-1. The transportation improvements would primarily occur within existing rights-of-way and would not physically divide any established communities. Given the nature of the project, potential transportation improvements would improve the City's existing roadway, pedestrian, bicyclist, and transit network. As such, the project would not physically divide an established community, and no impacts would occur in this regard.

MINERAL RESOURCES. *Would the project:*

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. The State Mining and Geology Board establishes Mineral Resources Zones (MRZs) to designate lands that contain mineral deposits. The classifications used by the State to define MRZs are as follows:

- *MRZ-1*: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- *MRZ-2*: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- *MRZ-3*: Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- *MRZ-4*: Areas where available information is inadequate for assignment to any other MRZ.

According to the General Plan MEA, areas within the City are designated MRZ-1 or MRZ-3.[5] Additionally, no active mining operations currently occur within the City.[6] As such, project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the State's residents. No impact would occur in this regard.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. Refer to response to Mineral Resources (a). No locally-important mineral resource recovery sites are located within the City. Thus, project implementation would not result in the loss of availability of a locally-important mineral resource recovery site and no impact would occur.

NOISE. *Would the project:*

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The nearest airport/private airstrip to the City is the General William J. Fox Field Airport located at 4725 William J. Barnes Avenue in the northern portion of Lancaster. Based on Exhibit 3-3, potential transportation improvements in the northern portion of Lancaster (near the intersection of 40th Street West and Avenue G) are closest to the General William J. Fox

[5] City of Lancaster, *Lancaster General Plan 2030 Master Environmental Assessment*, page 16, April 2009.
[6] California Department of Conservation, Division of Mine Reclamation, *Mines Online*, https://maps.conservation.ca.gov/mol/index.html, accessed September 22, 2021.

Field Airport, approximately 0.6 mile to the northwest. All other potential transportation improvements within the City are located further south . Future improvements within the General William J. Fox Field Airport Area of Influence and/or noise contour lines would be required to comply with applicable noise standard requirements. Additionally, given the nature of future transportation improvements, the improvements would not introduce new residents or employees to the area. Thus, the project would not expose people to excessive noise levels. Impacts would be less than significant in this regard.

POPULATION AND HOUSING. *Would the project:*

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project would establish a funding mechanism for future VMT-reducing transportation improvements in the City, such as sidewalks, bus bulb-outs, bicycle lanes, roundabouts, traffic circles, and raised crosswalks, among others; refer to Table 3-1. Such improvements would not involve new residential or nonresidential development or extension of roadways that could result in direct or indirect population growth. Thus, no unplanned population growth would occur in this regard.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. Refer to response to Population and Housing (a).

PUBLIC SERVICES. *Would the project:*

a)(1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

No Impact. As stated, future VMT-reducing transportation improvements in the City could include improvements such as sidewalks, bus bulb-outs, bicycle lanes, roundabouts, traffic circles, and crosswalks, among others; refer to Table 3-1. No residential or nonresidential development is proposed as part of the VMT Mitigation Program that could increase demand for public services in the City. Thus, no impact would occur in this regard.

a)(2) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

No Impact. Refer to response to Public Services (a).

a)(3) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services?

No Impact. Refer to response to Public Services (a).

a)(4) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for park services?

No Impact. Refer to response to Public Services (a).

a)(5) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

No Impact. Refer to response to Public Services (a).

RECREATION. *Would the project:*

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Refer to response to Public Services (a).

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. Refer to response to Public Services (a). Additionally, the program does not propose to develop any recreational facilities. Thus, no impacts would occur in this regard.

WILDFIRE. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:*

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire Protection's *Los Angeles County Very High Fire Hazard Severity Zones in SRA*, the City is not located in or near a State responsibility area (SRA).[7] Further, according to the California Department of Forestry and Fire Protection's *Los Angeles County Very High Fire Hazard Severity Zones in LRA*, the nearest local responsibility area (LRA)

[7] California Department of Forestry and Fire Protection, *Los Angeles County Fire Hazard Severity Zones in SRA*, November 7, 2007, https://osfm.fire.ca.gov/media/6705/fhszs_map19.pdf, accessed September 22, 2021.

is situated greater than 0.5-mile south, in the City of Palmdale.[8] As such, future transportation improvements implemented in the City would not be located in or near any very high fire hazard severity zones and no impact would occur in this regard.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. Refer to response to Wildfire (a).

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. Refer to response to Wildfire (a).

d) 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?

No Impact. Refer to response to Wildfire (a).

[8] California Department of Forestry and Fire Protection, *Los Angeles County Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE,* https://osfm.fire.ca.gov/media/7280/losangelescounty.pdf, accessed September 22, 2021.

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9.0 ORGANIZATIONS AND PERSONS CONSULTED

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