

# CITY OF BEVERLY HILLS 2021-2029 HOUSING ELEMENT UPDATE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

City of Beverly Hills

Planning Division, Department of Community Development

455 North Rexford Drive

Beverly Hills, CA 90210

September 2021

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## INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE 2021-2029 HOUSING ELEMENT UPDATE CITY OF BEVERLY HILLS

#### I. PROJECT TITLE

Beverly Hills 2021-2029 Housing Element Update

#### II. LEAD AGENCY NAME AND ADDRESS

City of Beverly Hills Community Development Department 455 N Rexford Drive Beverly Hills, CA 90210

#### III. CONTACT PERSON AND PHONE NUMBER

Timothea Tway, AICP City Planner Community Development Department, City of Beverly Hills 310-285-1122

#### IV. PROJECT LOCATION

The Project encompasses the entire City (See Exhibit 1).

#### V. PROJECT SPONSOR'S NAME AND ADDRESS

City of Beverly Hills 455 N Rexford Drive Beverly Hills, CA 90210

#### VI. GENERAL PLAN DESIGNATION

The City of Beverly Hills has a variety of General Plan designations including but not limited to single family residential, multi-family residential, commercial, mixed use, parks, and public buildings.

#### VII. ZONING DESIGNATION

The City of Beverly Hills has a variety of zoning designations including single family residential, multiple-family residential, commercial, transitional uses, and public and quasi-public uses.

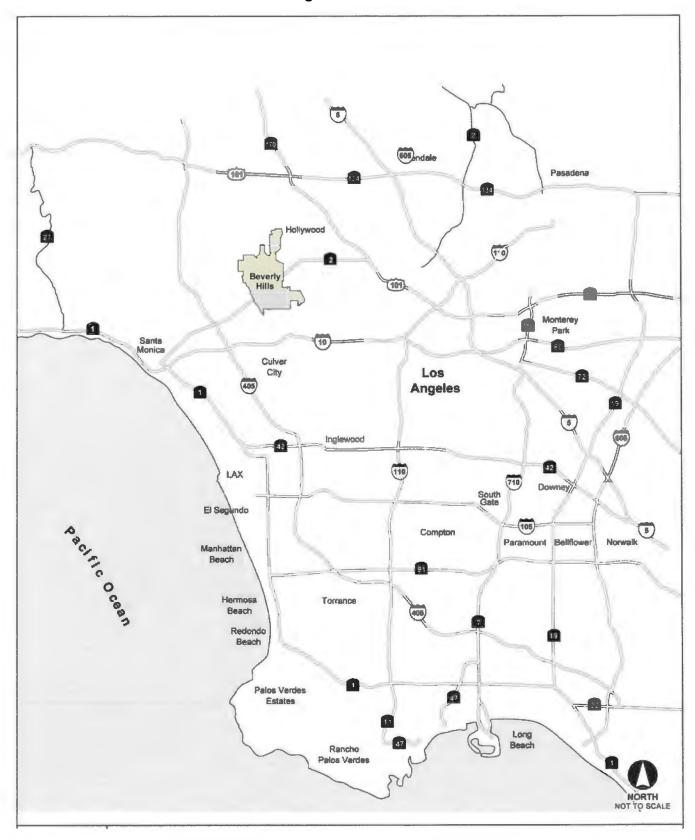
#### VIII. PROJECT DESCRIPTION

The State of California requires every city to include a Housing Element in its General Plan. The Housing Element must contain an analysis of the housing needs of all economic segments of the community, including persons with special needs, as well as goals, policies, programs and objectives to address those needs. State law requires that the City update its Housing Element every eight years, with the next update to cover the 2021-2029 planning period.

As required by State law, the Housing Element includes a Housing Plan, which establishes goals, policies, programs and quantified objectives for addressing the City's housing needs during the 8-year Housing Element planning period. The Housing Plan is based upon the City's analysis of a variety of issues that affect current and future residents of Beverly Hills. The data and analysis is presented in five appendices to the Housing Element:

- Appendix A includes analysis of the City's demographic characteristics and housing needs
- Appendix B includes analysis of potential constraints to meeting the City's housing needs
- Appendix C includes an evaluation of resources and opportunities available to address housing needs
- Appendix D provides a review of the City's accomplishments during the previous planning period and the effectiveness of current policies and programs in meeting housing needs
- Appendix E describes the public participation process for the Housing Element update

Exhibit 1
Regional Location



For purposes of CEQA analysis, the most relevant component of the draft Housing Element is the Housing Plan, which describes City policies and specific program actions to be implemented during the next eight years. The Housing Element appendices provide background information that was used in developing policies and programs, while the Housing Plan describes the policies and actions the City intends to implement that could cause physical changes in the environment. Therefore, this Initial Study/Mitigated Negative Declaration addresses potential physical impacts that would be expected to result from the adoption and implementation of the Housing Plan.

Some of the programs contained in the Housing Plan would not cause physical changes in the environment. Such programs include those intended to reduce the cost of housing through techniques such as rent stabilization, the preservation of affordability covenants, or reducing development cost by minimizing fees or streamlining the development review process. A reduction in the cost of housing is not a physical change subject to CEQA analysis. Other programs are intended to facilitate the preservation, maintenance and improvement of existing housing. While these programs could lead to physical changes, operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use is categorically exempt from environmental analysis pursuant to CEQA Guidelines Sec. 15301 – Existing Facilities.

Table 1 below lists each program in the draft Housing Element and identifies whether the program would cause physical changes that are subject to CEQA analysis. Of the 23 programs included in the Housing Element, five Programs (Programs 10.1 - Density Bonus, 10.6 - Partnerships with Affordable Housing Developers, 11.1 - Affirmatively Further Fair Housing, 11.2 - Senior Housing Development and 12.1 - Development Standards) have been identified as having the potential to cause physical changes in the environment. All 23 of the programs are presented verbatim in Table 1, along with the City's determination of their potential environmental effects.

**Table 1: Housing Element Program Summary** 

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
9.1 Upkeep and maintenance of vacated buildings	The City requires the exterior of vacated multi-family structures that will be demolished for redevelopment to be adequately maintained as a condition of tentative map approvals and extensions.  The City's Code Enforcement Office (Community Preservation) maintains a list of all vacant properties in the City, monitors the sites, and works with the property owners to assure that the properties are maintained in an appropriate manner	NO	The Class 1 categorical exemption (CEQA Guidelines Sec. 15301) includes repair and maintenance of existing facilities.  Therefore, the maintenance of vacated multi-family housing required by this program is exempt from further analysis.  Monitoring and coordination with property owners is a "continuing or administering activity", and therefore is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
9.2 Property Maintenance	The City requires housing to be maintained in an aesthetic, safe and habitable manner consistent with City codes. The program is run as part of the City's comprehensive Code Enforcement program (Community Preservation) and is structured as a reactive, complaint-driven inspection process. The Community Preservation Division does not perform regular or systematic housing inspections.	NO	The Class 1 categorical exemption (CEQA Guidelines Sec. 15301) includes repair and maintenance of existing facilities. Therefore, the maintenance activities required by this program are exempt from further analysis in the EIR.  Code enforcement activities by City staff include administrative procedures and visual investigations, which are considered a "continuing or administering activity", and therefore is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
9.3 Home Repair and Improvement	The Handyworker Program (also known as the Residential Rehabilitation Program) provides minor home repair, and improved security and mobility assistance to low-income tenants and homeowners in single- and multifamily units. Assistance is provided at no cost to the qualifying low-income owner or tenant. The City provides community outreach, applicant screening, pre-construction site visits, repairs and remodeling, and confirmation that the property meets the City's standards for habitability.	NO	The Class 1 categorical exemption (CEQA Guidelines Sec. 15301) includes repair and maintenance of existing facilities. Therefore, the activities resulting from this program are exempt from further analysis.  Activities by City staff to implement this program include administrative procedures that are considered a "continuing or administering activity", and therefore is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
9.4 Historic Preservation	Historic Preservation is a tool that can be used to maintain the City's historic housing stock. Beverly Hills has a rich history and legacy of architecturally significant buildings. The City has adopted a Historic Preservation Element within the General Plan to provide the foundation for the City's preservation activities. The Historic Preservation Ordinance (Article 32 of Chapter 3, Zoning Code) implements the goals, policies and programs of the General Plan, and establishes the review authority of the Cultural Heritage Commission. Individually designated historic properties, and properties within any future historic district, are required to obtain a	NO	This program proposes no changes to the City's existing historic preservation policies, regulations or procedures, and simply cross-references existing requirements.  The Historic Preservation Ordinance was enacted by the City Council on July 21, 2015 (Ordinance No. 15-O-2682). The City Council determined that the ordinance was categorically exempt pursuant to Section 15305 (Minor Alterations in Land Use Limitations) of the CEQA Guidelines.

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	Certificate of Appropriateness from the Cultural Heritage Commission prior to obtaining a building permit for alteration or development; minor alterations may be approved by Historic Community Development staff. Beverly Hills' "Historic Preservation Guidelines" along with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings provide the basis for Commission and staff review of Appropriateness.  The City has implemented and continues to explore incentives to promote the preservation of historic sites and structures. Through the Mills Act program, owners of designated historic single-family residential or commercial theater properties can enter into a contract with the City to reduce their property taxes in exchange for agreeing to maintain the property's historic character. The Mills Act program was adopted as a pilot program in 2011, and became permanent in January 2020. The City also adopted an ordinance to create the Historic Incentive Permit (Article 32.5 of Chapter 3, Zoning Code), which provides a process for owners of locally designated historic landmarks to request waivers or deviations		
9.5 Condominium Conversions	from certain development standards.  This program limits loss of rental housing units due to the conversion of existing apartment buildings to condominiums by setting an annual cap and providing protections for tenants.  Currently, apartment buildings proposed for conversion to condominium ownership are subject to the City's condominium conversion regulations (Beverly Hills Municipal Code Sections 10-2-710, 711, and 712). These regulations set forth a series of tenant protections including tenant noticing, relocation provisions, right of first purchase, and extended lease provisions for senior and disabled households. These regulations also set an annual limit on the number of conversions allowed.  The City will evaluate the effectiveness of the existing ordinance and consider modifying it to require a number of units in any building converted to be set aside as affordable rental or ownership housing. The City will also evaluate the benefit of offering an in-lieu fee option that would go into the City's Housing Trust Fund and be used to provide affordable housing elsewhere in the City.	NO	Regulation of the conversion of existing apartment units to condominiums is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment, and therefore is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
9.6 Rent Stabilization	Continue the City's Rent Stabilization ordinance to investigate tenant complaints regarding unlawful rent increases, service reductions, evictions and relocations.	NO	Regulation of rental rates is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	The Rent Stabilization Office administers the Rent Stabilization Program which affects approximately 7,700 apartment units in the City. The ordinance limits annual rent increases to no more than three percent or the calculated Consumer Price Index (CPI) percentage for the year, whichever is higher, and provides tenant protections through required noticing of rent increases and evictions. The program also requires that landlords register their properties with the Rent Stabilization office on an annual basis to monitor information about the existing multi-family units in the City and ensure compliance with the Rent Stabilization ordinance. Rent Stabilization staff respond to approximately 5,000 to 5,600 inquiries from residents or landlords annually, with approximately 400-600 complaints opened each year. Most complaints are resolved within 45 days, with the remainder being referred to "stepped up enforcement action", including but not limited to citations and further legal action. Although there are no systematic or annual inspections of housing conducted by the Rent Stabilization Office at this time, the City will review this issue in the upcoming planning period.		is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.  Further, a change to rental rates is an economic change that does not fall within the meaning of "significant effect on the environment" pursuant to CEQA Guidelines Sec. 15382 ("An economic or social change by itself shall not be considered a significant effect on the environment.")
9.7 Monitoring Affordable Housing	The City of Beverly Hills currently has a deed-restricted affordable housing project providing 150 units of affordable rental housing to very-low-income seniors. This project was originally financed under the HUD Section 202 program with project-based Section 8 certificates providing ongoing affordability. Although this project is not currently considered to be at risk of being converted to market rate housing, the City will continue to coordinate with the service provider to monitor Section 8 renewals, advise tenants in advance of any potential conversion dates, and provide opportunities to continue affordability covenants. The City also has two existing very low-income affordable units at 9265 Burton Way, and is in the process of assisting the property owners of 8600 Wilshire Boulevard to find tenants for two moderate-income affordable units. In addition, a multi-family housing project located at 250 N. Crescent Drive is currently under construction, which will contain one very low-income affordable unit. Three low-income units are constructed in a condominium project located at 309-325 S. Elm Drive, but have not yet started the affordable housing process with the City. The City has established the Affordable Housing Guidelines for the monitoring and management of additional deed-restricted units that are developed.	NO	Monitoring of affordability is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
10.1 Density Bonus	Under State Density Bonus Law, applicants of residential projects of five or more units may apply for a density bonus and additional incentive(s) if the project provides affordable housing units. In addition to the density	YES	State law requires the City to grant a density increase above the level otherwise allowed by the General Plan and Zoning Ordinance when a project provides affordable housing or other qualifying features as specified in State law. No specific

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	bonus, eligible projects may receive development incentives, depending on the proportion of affordable units and level of income targeting. In recent years the State Legislature has amended Density Bonus law. In order to ensure that City regulations are consistent with State requirements, the City will process an amendment to the Municipal Code in 2021.		development projects are proposed in connection with Housing Element approval; therefore, it is not possible to quantify the extent of density bonuses that are likely to occur in the future. To the extent feasible, the EIR analysis will consider the possibility that future residential developments facilitated by the Housing Element may obtain density bonuses.  Any subsequent housing development that requests a density bonus pursuant to this Program will be subject to compliance with CEOA and applicable land use policies and regulations.
10.2 Inclusionary Housing	In 2019, the City established an inclusionary housing program requiring a minimum percentage of units in a development to be price-restricted as affordable to lower- and moderate-income households. The ordinance also allows the payment of in lieu fees or provision of off-site affordable units for projects of a certain size. The City will continue to implement this program and contribute in-lieu fees generated from the program to the City's Housing Trust Fund.  Any Incentives offered under the Inclusionary Housing program will be linked with incentives offered under the City's Density Bonus program (Imp 10.1a)	NO	with CEQA and applicable land use policies and regulations.  No changes to existing inclusionary housing requirements are proposed in connection with Housing Element adoption. On December 17, 2019 the City Council adopted Interim Ordinance 19-0- 2797 establishing inclusionary requirements on new residential development. As part of that ordinance the City Council adopted a finding that ordinance was exempt from the environmental review requirements of CEQA pursuant to Section 15061(b)(3) of the CEQA Guidelines because it can be seen with certainty that there is no possibility that the adoption and implementation of the ordinance may have a significant effect on the environment. Staff is currently working on a permanent ordinance to establish inclusionary housing regulations or other program to increase development of affordable housing units in the City. The provision of any permanent ordinance will be evaluated for impacts at that time.  In addition, the inclusionary housing ordinance affects the rent or price of housing units, which does not fall within the meaning of "significant effect on the environment" pursuant to CEQA Guidelines Sec. 15382.
10.3 Housing Trust Fund	The City has limited access to state and federal housing resources, and therefore faces practical and financial constraints in its ability to facilitate the construction of affordable housing. To create a more viable funding source, in 2017 the City established a Housing Trust Fund that is used to support construction of affordable housing. Trust Fund resources include development agreements and in-lieu fees from the Inclusionary Housing Program. An official Affordable Housing Program may be established to manage the Trust Fund and establish parameters for allocation of funds towards projects, including consideration of priority assistance to projects	NO	The ongoing management and operation of the existing Housing Trust Fund is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	which include a portion of units affordable to extremely-low-income households.		
10.4 Accessory Dwelling Units	Accessory Dwelling Units (ADUs) can provide affordable housing options to the elderly, young adults, caregivers and other household employees while also generating income for homeowners. In recent years, the State Legislature has adopted significant changes to State law to encourage ADU production.  The City is currently processing a Municipal Code amendment to revise ADU regulations in conformance with current State law.  To further encourage the provision of ADUs, the City will:  Consider greater flexibility in ADU standards in R-1 zones south of Santa Monica Boulevard  Explore increasing the by-right ADU size  For ADUs built above a garage, consider allowance for an increase in the permitted height up to the height of the primary residence.  Consider allowances for reduced setback requirements where	NO	The State Legislature has issued a Statutory Exemption for Ordinances Implementing Law Relating to Construction of Dwelling Units and Second Units (Section 21080.17, Public Resources Code).  In addition, Government Code Sec. 65852.150 et seq. establishes that permits for construction of ADUs that conform to State standards are ministerial actions, which are exempt from environmental analysis pursuant to CEQA Guidelines Sec.15280.  If the City chooses to allow development of ADUs that exceed applicable standards subject to discretionary review, such ADUs would be subject to CEQA review.
10.5 Sustainability and Green Building	rivacy is not compromised  "Green buildings" are structures that are designed, renovated, re-used or operated in a manner that enhances resource efficiency and sustainability. These structures reduce water consumption, improve energy efficiency, and reduce a building's overall environmental impact. The City of Beverly Hills has adopted the current version of the California Green Building Standards Code (CALGreen).  Beverly Hills has also adopted a Sustainable City Plan in conjunction with recent amendments to its General Plan. The overall goal of the Sustainable City Plan is to reduce the City's carbon footprint by providing a model framework for sustainable practices for the environment, the economy and social equity.	NO	No changes to building codes or the Sustainable City Plan are proposed in connection with Housing Element adoption. Pursuant to CEQA Guidelines Section 15307, actions of regulatory agencies for protection of the environment are categorically exempt from CEQA review. In addition, the enforcement of existing building codes and programs to reduce carbon emissions is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
10.6 Partnerships with Affordable Housing Developers	The City will actively participate in conferences, symposiums, and affordable housing related events such as: the Southern California Association of Nonprofit Housing annual conference. The City will work to select an affordable housing developer to develop an affordable housing project, and will support in this effort through leveraging local Housing Trust Funds, assisting in the application for State and federal financial resources, facilitating project entitlement, and providing a package of incentives such as fee deferrals and relaxed development standards.	YES	This program describes actions the City will take to encourage and facilitate development of affordable housing.  Potential physical changes from construction of affordable housing pursuant to this program are evaluated in the Initial Study.

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
11.1 Affirmatively Further Fair Housing	Under State law, affirmatively further fair housing means "taking meaningful actions, in addition to combatting discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics."  As a participating jurisdiction in the Los Angeles County Community Development Block Grant (CDBG) program, fair housing services are coordinated by the County Development Authority on behalf of the City. The County currently contracts with the Housing Rights Center (HRC) to serve as the provider of fair housing and tenant-landlord information for its participating jurisdictions, including Beverly Hills. HRC provides fair housing investigation and coordinates referral services to assist individuals who may have been the victims of discrimination. Many of the people who contact HRC have basic questions about landlord and tenant rights and responsibilities; HRC's housing counselors provide clients with comprehensive information to help resolve tenant/landlord issues.  The City will continue to promote fair housing practices and refer fair housing complaints to the Housing Rights Center. As a means of furthering fair housing education and outreach in the local community, the City will advertise the fair housing program through placement of fair housing services brochures at public counters in City Hall and the library, at the Beverly Hills Senior Center, and on the City's website.  In addition, the City will undertake the following actions intended to foster an inclusive community and enhance access to opportunity for all:  Ensure that all development applications are considered, reviewed, and approved without prejudice to the proposed residents, contingent on the development application's compliance with all entitlement requirements.  Accommodate persons with disabilities who seek reasonable waiver or modification of land use controls and/or development standards pursuant to procedures and criteria set forth in the applicable		Activities to affirmatively further fair housing include facilitating the development of affordable housing and housing for persons with special needs. Therefore, this program is evaluated in the Initial Study.
	Impediments to Fair Housing Choice and HUD Consolidated Plan.  • Facilitate public education and outreach by posting informational flyers on fair housing at public counters, libraries, and on the City's website.		

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	<ul> <li>Conduct public meetings at suitable times, accessible to persons with disabilities, and near public transit. Resources will be invested to provide interpretation and translation services when requested at public meetings when feasible.</li> <li>Encourage community and stakeholder engagement during development decisions.</li> </ul>		
11.2 Senior Housing Development	The need for senior housing in the City is significant and growing.  Approximately 22 percent of Beverly Hills residents are senior citizens compared to only 13 percent in the entire SCAG region, and 58 percent of the City's senior renter households are lower income (<80% AMI). The City is actively pursuing development of an affordable housing project targeted towards Beverly Hills' extremely-low- and lower-income residents. As indicated in Program 10.6 (Partnerships with Affordable Housing Developers), the City will provide the following incentives to facilitate development:  Flexible development standards (reduced parking requirements, modified setbacks, etc.)  Density bonuses  City support in affordable housing funding applications (priority to those that support deeper targeting to ELI households)  Deferral/reduction in development fees  Direct financial assistance through Housing Trust Fund  Project entitlement assistance	YES	Administrative activities to encourage the development of senior affordable housing development may result physical changes in the environment. Therefore, this program's potential effects are evaluated in the Initial Study.
11.3 Senior Case Management Program	The City contracts with Jewish Family Service to provide a comprehensive case management program to assist frail elderly residents to remain independent and in their homes.  The following continuum of supportive services are provided to seniors who are frail, economically needy, and/or socially isolated:  Comprehensive assessment – In-home psycho-social assessment of functional abilities, health status, mental and cognitive abilities, support network, financial health, safety risks, eligibility for government benefits and other programs. The comprehensive assessment includes:  Development of an individual care plan – Identifies senior's needs and associated services that will allow continued independence.  Service coordination – Coordination with appropriate services, including in-home care-workers, ERS, home delivered meals, assistance to obtain governmental benefits, arranging for other community-based services, transportation assistance, and coordination of services with medical providers, family, and social supports.	NO	Continued provision of social services and activities is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.  In addition, social services do not fall within the meaning of "significant effect on the environment" pursuant to CEQA Guidelines Sec. 15382 ("An economic or social change by itself shall not be considered a significant effect on the environment.")

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
Imp 11.4 Senior Homesharing Program	o Emergency Response Systems (ERS) – ERS are medical devices placed in a senior's home and connected to a central emergency location.  o Monitoring/ home visits: Social workers make regularly scheduled home visits to assure quality of services, and that changing needs are met.  Additional Services: Information, referral and crisis intervention, consultation and advocacy, and assistance to families to further support the senior's independent living.  Jewish Family Service provides broad case management services through the Beverly Hills Senior Center, including information, referral and crisis intervention, serving approximately 250 seniors thus far.  Alternative Living for the Aging (ALA) provides a free shared housing program which matches older people with others (younger and older) interested in sharing their homes. Housing counselors at ALA interview each potential housemate and obtain references, leaving the decision to the potential housemates whether to make a match. Sharing a home promotes independent living, provides additional income for the provider, an affordable rent for the seeker, and the potential for deeper relationships for both. The average age of community members in Beverly Hills is growing older, and shared housing promotes the efficient use of the housing stock, and can help address the housing needs of seniors in our community. The City has provided funds to ALA in the past to help fund their housemate matching service, and anticipates the program will funded again in future years when there are fewer budget constraints. Beverly Hills residents continue to have access to ALA's home sharing program.	NO	Continued funding of ALA's home sharing coordination is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.  In addition, social service activities do not fall within the meaning of "significant effect on the environment" pursuant to CEQA Guidelines Sec. 15382 ("An economic or social change by itself shall not be considered a significant effect on the environment.")
11.5 Housing Opportunities for Persons with Disabilities	The City understands the significant and wide-ranging housing needs faced by persons with disabilities and their families. The Westside Regional Center (WRC) reports that nearly 60 percent of their adult clients with developmental disabilities live with their parents, and as these parents age and become frailer, their adult disabled children will require alternative housing options. There are several housing types appropriate for persons living with a developmental disability, including: licensed community care facilities and group homes; supervised apartment settings with support services; and for persons able to live more independently, rent subsidized, affordable housing. For persons with physical disabilities, housing accessibility is essential, ideally located in close proximity to services and transit. The City will work with the WRC to implement an outreach program informing Beverly Hills' families of	NO	Adoption and implementation of local regulations to ensure compliance with State laws regarding housing for persons with disabilities or other special needs would not cause direct or indirect physical changes in the environment. This program would align City regulations with existing State law and would not authorize any development or land uses that are not currently allowed.  This program is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment, Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	housing and services available for persons with developmental disabilities, including making information available on the City's website. Beverly Hills supports the provision of housing for those with disabilities, including developmental disabilities, through several means, including:  By-right zoning for licensed residential care facilities (6 or fewer residents) in all residential zones, and provisions for larger care facilities (7 or more residents) in residential zones subject to a use permit  Adoption of Ordinance 12-O-2633 in November 2012 to specifically define transitional and supportive housing as a residential use of property, and to permit in all residential zone districts subject only to those restrictions and processing requirements that apply to other residential dwellings of the same type in the same zone.  Addition of Article 36.7 to the Municipal Code, establishing a procedure for an individual with a disability to request a reasonable accommodation from zoning and building standards.  Provision of Home Repair and Improvement (Handyworker) grants for lower-income households that may be used for accessibility		
11.6 Funding for Homeless Services	improvements.  Beverly Hills launched the CLASP (Changing Lives and Sharing Places) Homeless Outreach and Engagement Program in 2008. The program provides street outreach workers (through Step Up On Second) to assess the needs of homeless individuals in the City, provide case management, and to refer them to the appropriate services and shelter. Shelter is offered through People Assisting the Homeless (PATH), funded by the City to provide approximately 1,500 shelter bed-nights per year. The City is also partnering with Step Up on Second to provide an apartment unit, combined with case management support.  Through its Community Assistance Grant Program, the City funds a variety of service organizations that serve the homeless and persons at risk of homelessness. These organizations/programs include the All	NO	Providing funding and social services for the homeless is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not within the definition of a "project" pursuant to Section 15378(b)(2) of the CEQA Guidelines.
11.7 Implement Low Barrier Navigation Center Regulations	Saints Homeless Assistance Program, the Westside Food Bank, the Los Angeles Free Clinic, and the Maple Mental Health Counseling Center.  The City will establish a program to promote low barrier navigation centers that will reduce barriers to entry for housing and to help move people into permanent housing.  The California legislature adopted AB 101 in 2019, which requires the byright allowance of low barrier navigation centers that meet specific	NO	AB101, adopted in 2019, provides that CEQA does not apply to an action taken by a public agency to lease, convey, or encumber land owned by a public entity or to facilitate the lease, conveyance, or encumbrance of land owned by a public agency, or to provide financial assistance to, or otherwise approve, a Low Barrier Navigation Center constructed or allowed by this bill.

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	standards in mixed use zones and non-residential zones that permit multi-family uses.		In addition, AB 101 requires cities to allow construction of Low Barrier Navigation Centers that conform to specific standards as ministerial actions, which are exempt from environmental review pursuant to CEQA Guidelines Sec. 15300.1. (See also Pub. Res. Code Sec. 21080.)
12.1 Development Standards	The City's development standards are aimed at ensuring the quality and appropriateness of development; however, some standards may have the effect of constraining the provision of certain housing types, and are considered below. The Housing Element constraints analysis identifies the City's minimum unit size as a disincentive to the construction of smaller, more affordable units for the City's workforce. In addition, the Element identifies the City's height districts and parking location requirements as potential constraints to development. With the adoption of its Housing Element in November 2011, the City committed to reducing minimum unit size requirements, and to conducting an analysis of the multi-family development standards to identify any standards identified as a constraint, and implement revisions as may be warranted. As part of the update to the density bonus ordinance to define a list of by-right development incentives (refer to Program 10.1), the City is evaluating reduced unit sizes ranging from 20-40% for projects that incorporate affordable units. The City is also evaluating adjusting other development standards that would be beneficial to facilitating affordable housing, including but not limited to the following:  o Replacing the current density calculation for multi-family projects in the Zoning Code with a maximum floor area ratio o Modifying development standards for single-lot projects o Allowing greater flexibility in the type, and location of multi-family parking o Allowing the same number of units to be rebuilt on properties that have more units than currently would be allowed o Providing additional incentives for workforce housing over and above those contained in the provisions of the State Density Bonus.	YES	The modification of development standards to remove potential constraints would help to facilitate housing development consistent with regional plans as facilitated by the Housing Element. Potential impacts are evaluated in the Initial Study. If specific amendments to development standards are proposed as part of the implementation of this program, those proposals will be reviewed for compliance with CEQA.
12.2 Reduced Fees for	Beverly Hills collects various fees from development to cover the costs of processing permits and providing services and facilities. The City will	NO	Preparing a comprehensive Citywide fee study, including potential reduction of development fees, would be considered
Affordable Housing	utilize an economic consultant to prepare a comprehensive Citywide fee study, including an evaluation of the economic benefit of providing waivers or reductions of certain taxes, and fees including certain project fees for developments containing very-low, low- and moderate-income		"creation of government funding mechanisms or other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment."

Program	Proposed Actions	Are the Potential Environmental Effects of this Program Evaluated in the Initial Study?	Rationale
	housing units, as well as for housing developed under the City's modified standards for Multiple-family Residences for Elderly and Handicapped Persons (Deed Restricted).  The California legislature passed AB 641 in 2007 which helps to address the cash flow problems inherent in many affordable housing projects during the construction phase. For affordable housing developments in which at least 49 percent of the units are affordable to lower-income households, AB 641 prohibits local governments from requiring the payment of local developer fees prior to receiving a certificate of occupancy.		Therefore, this fee study is not_considered a "project" as defined in Section 15378(b)(4) of the CEQA Guidelines.  Further, Public Resources Code 21080(b)(8) may provide a Statutory Exemption for any subsequent fee reductions adopted pursuant to this fee study.
12.3 Monitor the Development Review Process	The City's Community Development Department has been restructured to provide more efficient permitting through:  • Establishment of a dedicated group of Zoning and Building staff focused on processing permits  • Hiring an Urban Designer to help streamline design review for development applications  In addition, the City is currently updating its Zoning Code to reduce inefficiencies and uncertainty in the development review process.	NO	Modifications to administrative procedures that improve the efficiency of the development permit process is considered an organizational or administrative activity that will not result in direct or indirect physical changes in the environment. Therefore, this program is not considered a "project" as defined in Section 15378(b)(5) of the CEQA Guidelines.

#### Exhibit 2 **Mixed-Use Overlay Zone**

### General Plan Land Use Designations Map (MAP LU1) Detail of Vicinity with new Mixed Use Overlay Zone Indicated



Note - This exhibit is for the purpose of illustrating where the Mixed Use Overlay will be applied and is not intended to supersede the underlying commercial designations.

#### IX. SURROUNDING LAND USES AND SETTING

The City of Beverly Hills is bordered by the City of West Hollywood to the east, the City of Los Angeles neighborhoods of Carthay to the south, Century City to the west, and Holmby Hills and Brentwood to the northwest and north. The City is 5.7 square miles and is home to a resident population of approximately 35,000 people and is generally a built-out City with little vacant land.

#### X. NECESSARY PUBLIC AGENCY APPROVALS

The 2021-2029 Housing Element update will require approval by the City of Beverly Hills City Council after recommendation of approval from the City of Beverly Hills Planning Commission. In addition, the California Department of Housing and Community Development must review the 2021-2029 Housing Element document to determine if it is in compliance with State law.

#### XI. CALIFORNIA NATIVE AMERICAN TRIBE CONSULTATION

Pursuant to Public Resources Code section 21080.3.1, California Native American tribes that have been traditionally and culturally affiliated with the project area have been contacted for tribal consultation. More information can be found in the Tribal Cultural Resources section of this document. No tribes have requested consultation with the City of Beverly Hills.

#### XII. ENVIRONMENTAL SETTING AND ASSUMPTIONS

#### A. Baseline for Analysis.

The existing environmental setting is the baseline physical conditions by which the City will determine whether an impact is significant.

#### B. Physical Impacts to be Evaluated.

CEQA requires analysis of the reasonably foreseeable impacts<sup>1</sup> that would be caused by the approval of a project. Therefore, this analysis is based upon the reasonably foreseeable impacts that would result from the adoption and implementation of the Housing Element.

Environmental impacts (or effects) are defined in CEQA Guidelines Sec. 15358 as follows:

#### (a) Effects include:

(1) Direct or primary effects which are caused by the project and occur at the same time and place.

(2) Indirect or secondary effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

(b) Effects analyzed under CEQA must be related to a physical change.

No specific development projects are proposed in connection with the approval of the Housing Element; therefore, no direct physical impacts would be caused by Housing Element approval. However, some Housing Element programs are intended to facilitate housing development and therefore would contribute to indirect impacts. The focus of this analysis is on reasonably

<sup>&</sup>lt;sup>1</sup> See, for example, CEQA Guidelines Sections 15060(c)(2), 15064(d), 15064.4(b), 15152(b), 15155(f), 15355(b) and 15358

foreseeable indirect effects that would be caused by implementation of Housing Element policies and programs.

Some Housing Element programs include actions that would lead to indirect impacts but those impacts are exempt from CEQA analysis by statute, such as the adoption of accessory dwelling unit (ADU) regulations, while other programs would merely incorporate existing State laws related to housing such as density bonus, reasonable accommodation for persons with disabilities, and regulation of low barrier navigation centers.

Table 1 describes each of the programs contained in the draft Housing Element and the extent to which the potential environmental effects of those programs are subject to CEQA review. <u>Programs identified as not having the potential to cause significant effects, or programs that are exempt from CEQA analysis, are not addressed further in the Initial Study.</u>

#### C. Reasonably Foreseeable Impacts

CEQA requires evaluation of the reasonably foreseeable direct and indirect physical impacts that would be caused by a project. Because no specific development projects are proposed in connection with Housing Element adoption, no direct physical impacts would occur. Therefore, the focus of the analysis is on the reasonably foreseeable indirect physical impacts that would be caused by future implementation of the policies and programs contained in the Housing Element. Indirect impacts would be those that are caused by the construction and operation of future housing developments facilitated by policies and programs contained in the Housing Element, as discussed in Table 1.

State law requires the Housing Element to demonstrate that there are adequate sites with appropriate zoning that could accommodate the Regional Housing Needs Assessment (RHNA) allocation. The sites analysis contained in Appendix C of the Housing Element has determined that existing General Plan and zoning regulations could accommodate the amount of additional housing units allocated to the City in the RHNA; therefore, a fundamental issue for the environmental analysis will be the reasonably foreseeable amount of development expected to occur over the 2021-2029 planning period. As described in SCAG's March 4, 2021 RHNA Plan², the RHNA allocations are comprised of two major components: existing need plus projected need.

The City's RHNA allocation for the 2021-2029 period is 3,104 units, which is comprised of the following components:

Household growth: 262 units (8%)
Vacancy adjustment: 9 units (0.3%)
Replacement need: 255 units (8%)
Existing need: 2,570 units (83%)
Appeals reallocation 7 units (0.2%)

Total RHNA: 3,104 units (total 1 unit off due to rounding error)

Source: SCAG, 3/4/2021

Projected need is comprised of three components: 1) the household growth forecast; 2) a vacancy adjustment to maintain housing market mobility; and 3) replacement need to account for units expected to be lost due to demolition. The household growth forecast is the number of additional households expected to be added to the Beverly Hills population per SCAG's adopted policy growth forecast. SCAG's 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which has a "horizon year" of 2045, is based upon a growth forecast that assumes approximately 900 additional households will be added to Beverly Hills' population during the 2016-2045 period. SCAG is required by State and Federal law to use the policy growth forecast as the

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<sup>&</sup>lt;sup>2</sup> SCAG RHNA Plan can be found at scag.ca.gov/rhna

basis for the RTP/SCS. As shown in the table above, SCAG has determined that 262 units (8%) of the RHNA allocation is attributable to expected household growth in Beverly Hills during the 2021-2029 period. Throughout this study the term "Growth Forecast" will be used to reference this household growth forecast that is expected to be added to the population per SCAG's adopted policy growth forecast.

Housing units built to satisfy vacancy objectives would not be occupied and therefore would generate no impacts related to occupancy (e.g., travel by occupants and related impacts such as air quality and greenhouse gas emissions). Similarly, new housing units built to replace existing units demolished, while the units themselves may be bigger, would generally generate no net increase in impacts related to occupancy. The replacement of existing structures is also categorically exempt from analysis pursuant to CEQA Guidelines Sec. 15302 – Replacement or Reconstruction.

Existing need is based upon current rates of overpayment and overcrowding in the region's existing population and is allocated in the RHNA based on a jurisdiction's access to jobs and transportation (i.e., not based on the number of overcrowded or cost-burdened households currently living in the city).

These components of the RHNA allocations are important because CEQA requires analysis of the reasonably foreseeable impacts that would be caused by the approval of a project.

It should be noted that the RHNA allocations describe *housing need*, as opposed to *expected housing development*. The RHNA is not a prediction of likely future housing development. Rather, the RHNA is intended to identify the amount of additional housing at various income levels each city would need in order to provide housing for every household expected to live in the city during the 8-year RHNA period while also eliminating all overcrowding and overpayment for both existing and new households. As shown in the table above, 83% of the City's RHNA allocation is based upon existing need, while only 8% is due to projected population growth. The remaining 9% is based upon "vacancy adjustment" (i.e., unoccupied units), replacement need (i.e., new housing units that replace other units demolished – not a net increase), and a numerical reallocation of units due to successful appeals filed by other jurisdictions (i.e., not due to population growth in Beverly Hills).

The analysis included in this document evaluates the potential indirect impacts that would result from the adoption of the Housing Element given the RHNA allocation. In addition, in order to evaluate reasonably foreseeable impacts consistent with the legislative intent of CEQA, this document also includes analysis assuming that future housing development will be consistent with the adopted growth forecast rather than the RHNA allocation because the growth forecast is considered to be the best available estimate of future growth and reasonably foreseeable physical changes. As noted in CEQA Guidelines Sec. 15358(b), effects analyzed under CEQA must be related to a physical change. In addition, "Project" is defined in CEQA as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment...." Analysis based on the entire RHNA allocation is included in order to provide a conservative evaluation of the Project, however, it should be noted that basing the environmental analysis on the entire RHNA allocation, rather than the growth forecast, likely results in a substantial overstatement of reasonably foreseeable physical changes in the environment, and would be highly speculative in nature.

The draft Housing Element analysis has determined that all of the new housing need assigned to the city during the next 8 years in the RHNA could be accommodated on "underutilized" sites located within the Mixed Use Overlay Zone (see Exhibit 2), through the construction of accessory dwelling units ("ADUs"), or on existing vacant multifamily residential properties in the City that do not need to be rezoned. Generally, new single family homes in the City are replacing demolished single family homes. While there will be ADUs constructed in single family neighborhoods, there will not be a substantial number of new primary units added to single family neighborhoods. In

multi-family areas of the City, new projects generally replace existing multi-family housing projects. With the use of state density bonus, it is possible that there will be a net gain in units in multi-family neighborhoods in the city. While some new housing is expected to be built in areas designated solely for residential use, such as multi-family areas, those new units would replace existing housing units and would be located on infill sites in already urbanized areas served by sufficient utilities and are not be expected to cause significant environmental impacts. In addition, it should be noted that a vast majority of the multi-family units in the City of Beverly Hills fall under the City rent stabilization ordinance. Because of this, per SB 330, all demolished rent stabilized units must be replaced, and a portion of demolished rent stabilized units are required to be replaced at affordable levels when demolished for construction of a new housing project. This increases the likelihood that a developed will take advantage of state density bonus provisions when constructing new housing.

#### **ENVIRONMENTAL FACTORS AFFECTED**

imp	The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.							
	Aesthetics		Agriculture Resources		Air Quality			
$\boxtimes$	Biological Resources	$\boxtimes$	Cultural Resources		Geology/Soils			
	Greenhouse Gas Emissions		Hazards & Hazardous Materials		Hydrology/Water Quality			
	Land Use/Planning		Mineral Resources		Noise			
	Population/Housing		Public Services		Recreation			
	Transportation/Traffic		Tribal Cultural Resources		Utilities/Services Systems			
	Mandatory Findings of Significance							
					al Checklist Form in the current CEQA amended December 28, 2018).			
	<b>FERMINATION</b> the basis of this initial evaluati	on:						
	I find that the proposed p			signif	icant effect on the environment, and a			
V	✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.							
	I find that the proposed ENVIRONMENTAL IMPAC			ifican	t effect on the environment, and an			
	I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.							
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revision or mitigation measures that are imposed upon the proposed project, nothing further is required.							
	Signature Date: September 7, 2021							
	Timothea (way, City Planne	r		ty of I	Beverly Hills			
	For							

#### 1. AESTHETICS

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Wot	uld the adoption or implementation of the Housing I	Element:			
a)	Have a substantial adverse effect on a scenic vista?			×	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?			×	
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?			×	
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			×	

#### Discussion:

Note: Pursuant to Public Resources Code Sec. 21099(d) "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." Per the Southern California Association of Governments (SCAG) Regional Transportation Plan, all portions of the Mixed Use Overlay Zone are within the definition of "infill sites" and most of the MU Overlay and residentially zoned parcels in the City are within a TPA as defined by Public Resources Code Section 21099(a)(7). (See Attachment 5.) Therefore, the following analysis is limited to potential impacts in those areas that are not within transit priority areas.

No site-specific development is proposed at this time; however, the Housing Element plans for 3,104 units, but is likely to facilitate the development of approximately 271 additional housing units during the 2021-2029 period consistent with the Growth Forecast. While it is likely that some ADUs will be constructed in single family areas and there will be redevelopment of some multi-family properties, most of the new residential development is expected to occur within the Mixed Use Overlay Zone. Because no specific development is proposed at this time, the following analysis addresses potential aesthetic impacts that would be reasonably expected to occur due to future developments at a conceptual level of detail. All future development projects will be subject to the appropriate CEQA review and additional analysis may be required at that time.

- a) Less than significant. Scenic vistas are limited due to the fact that Beverly Hills is a highly urbanized area. Views of the hills to the north and views of some prominent landmark buildings, such as the Saban Theater, The Beverly Hills Hotel, and City Hall, are visible from some areas; however, height limits for projects facilitated by the Housing Element, while they could theoretically be taller than what currently exists on a site with approval of a density bonus project, would not allow for buildings that are substantially taller than other existing buildings in the vicinity. Buildings of this scale would not be expected to have a substantial adverse impact on any scenic vistas. Therefore, impacts would be less than significant.
- b) <u>Less than significant</u>. There are no designated State scenic highways in the City of Beverly Hills. (California Scenic Highway Mapping System, 2016). Therefore, potential impacts would be less than significant.

- c) <u>Less than significant</u>. Beverly Hills is located in an urbanized area. Zoning and other regulations governing scenic quality include building height limits, setbacks, and landscaping requirements. All future housing developments will be required to comply with these standards. While projects that may qualify for a density bonus could be allowed to exceed current standards, under State density bonus law such modifications to existing regulations are not considered to be inconsistent with zoning or other regulations. Therefore, potential impacts would be less than significant.
- d) Less than significant. New residential development facilitated by the Housing Element could introduce new sources of light and glare in the community. Potential new sources of light and glare could include windows, lighting of entrances, exterior building and security lighting, and lights from vehicles entering and exiting the building. New sources of lighting must comply with Beverly Hills Municipal Code Section 5-6-1101 (Excessive Lighting Prohibited), which prohibits the installation, use, and maintenance of lighting that creates an intensity of light on residential property greater than one foot-candle above ambient light level. Required compliance with existing lighting regulations would reduce this potential impact to a level that is less than significant.

#### 2. AGRICULTURE AND FOREST 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 option model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environment 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 Housing Element and/or its implementation:

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				×
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				×
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))?				×
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				×
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?				×

#### Discussion:

- a) No impact. There is no designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the City of Beverly Hills (California Department of Conservation, 2012); therefore, no impacts would occur.
- b) No impact. Beverly Hills is highly urbanized and does not have any agricultural zoning, nor are there any Williamson Act contracts recorded within the City. Therefore, no impacts would occur.
- c) No impact. Beverly Hills is highly urbanized and does not have any forest land, nor is there any timberland zoned "Timberland Production" within the City. Therefore, no impacts would occur.
- d) No impact. Beverly Hills is highly urbanized and does not have any forest land located within the City. Therefore, no impacts would occur.

e)	e) No impact. Beverly Hills is highly urbanized and does not have any agricultural la located within the City. Therefore, no impacts would occur.	nd or forest land

#### 3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Housing Element and/or its implementation:

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?			$\boxtimes$	
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?			×	
c)	Expose sensitive receptors to substantial pollutant concentrations?			×	
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			×	

#### Discussion:

a) Less than significant. The applicable air quality plan for Beverly Hills is the South Coast Air Quality Management District's 2016 Air Quality Management Plan.<sup>3</sup> No specific development project is proposed at this time in connection with adoption of the Housing Element; however, the Housing Element plans for an additional 3,104 units and reasonably anticipates the development of approximately 271 additional housing units during the 2021-2029 period consistent with the regional growth forecast. State law requires that the Housing Element be updated for the 2021-2029 planning period, and the Housing Element must demonstrate that the City's land use plans and zoning regulations could accommodate additional housing commensurate with the RHNA allocation of 3,104 units. As discussed previously, the RHNA is an estimate of housing need, not a prediction of future growth. Appendix C - Resources includes an inventory of sites that could accommodate the additional housing units assigned in the RHNA. The inventory is based upon existing General Plan land use and zoning designations, and no changes to existing land use and zoning designations are proposed in the Housing Element. While the City's existing plans and zoning could theoretically accommodate the level of development assigned in the RHNA, the reasonably foreseeable level of development is considered to be 271 units during the 2021-2029 planning period consistent with the regional Growth Forecast.

SCAG's regional growth forecast is the basis for the Regional Transportation Plan/Sustainable Communities Strategy and the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). A technical study was completed to analyze the potential air quality impacts of the implementation of the Housing Element (Attachment 7). The results of the study indicate that the Housing Element would not result in growth that was not accounted for within the City and would not clonflict with or obstruct implementation of the AQMP. Impacts would be less than significant.

b) <u>Less than Significant.</u> As stated, the Housing Element is a policy document and does not result in the direct actual physical development of housing units. Residential construction facilitated by the Housing Element

<sup>&</sup>lt;sup>3</sup> http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp

could generate criteria pollutant emissions exceeding the SCAQMD regional construction thresholds. In addition, the ongoing operation of new residential development would generate criteria emissions due to vehicle trips to and from individual projects, energy use, and area sources such as the use of landscaping equipment. It should be noted that future housing development projects would be required to comply with AQMD and City regulations intended to reduce emissions of criteria pollutants during construction and operation including but not limited to compliance with AQMD Rule 403 regarding fugitive dust, SCAQMD Rule 1113 regarding volatile organic content of architectural coatings and Rule 445 regarding prohibition on wood burning devices in new homes. Further, facilitating housing on infill sites on existing commercial corridors (such as in the Mixed Use Overlay Zone) could help reduce regional air quality impacts due to the fact that it would be lessening the jobs housing imbalance that exists within the City and could provide housing for workers in the City, thus reducing the need to commute and the total VMT.

Appendix IV of the 2016 AQMP discusses the South California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which projects 46 percent of housing to be located in areas served by high quality transit, such as the corridors planned for mixed use development as part of the Project. As a result of this high percentage of infill development near transit, SCAG is projecting that daily per capita VMT will decrease in 2040 by 7.4 percent (AQMP Appendix IV, 2016). Further, the document recognizes that new development projects will be constructed in compliance with Title 24 regulations that "greatly reduce construction and operational emissions compared with existing air emissions standards" (Pg. IV-A-121). Appendix IV part C further outlines land use strategies that were developed as part of the RTP/SCS to integrate the transportation network with land uses to achieve a sustainable region. One of these strategies is focusing new growth around high quality transit areas and transit, which is one of the anticipated outcomes of the Project.

- c) Less than significant. Projects are considered to have significant impacts to sensitive receptors if they expose sensitive receptors to substantial levels of toxic air contaminants. Sensitive receptors include places where children, the elderly and people with health problems congregate. This includes parks, hospitals, community centers, schools, and residential areas. Implementation of the Housing Element could result in redevelopment of sites for residential or mixed use, and demolition of buildings must comply with regulations related to asbestos and lead paint, which are considered to be toxic air contaminants. Rule 2403 of the SCAQMD requires that the applicant obtain an asbestos abatement permit from the City of Beverly Hills if toxic air contaminants are found prior to demolition. Any proposed project must also comply with California Code of Regulations Section 1532.1, which requires that lead-based materials are handled such that exposure levels do not exceed standards set forth by the California Occupational Safety and Health Administration (CalOSHA). Because any project facilitated by the Housing Element must comply with these regulations, impacts would be less than significant.
- d) Less than significant. While the Housing Element is a policy document and does not include development at this time, future housing projects constructed due to the implementation of the Housing Element do have the potential to emit odors. As described in the attached Air Quality Technical Study (Attachment 7), according the SCAQMD CEQA Air Quality Handbook, construction equipment is not a typical source of odors for projects. There are a number of regulations that govern potential sources of odor during construction including California Air Resources Board Airborn Toxic Control Measures (CARB ATCM) that limits diesel-fueled commercial vehicle idling and SCAQMD Rule 402, which prohibits the emissions of nuisance air contaminants or odorous compounds. There will be no impacts to odors through adherence to the SCAQMD and State regulations regarding odors during construction. Future projects facilitated by the Housing Element would not increase localized air pollutant emissions during operations as they would be residential in nature. Impacts would be less than significant.

#### 4. BIOLOGICAL RESOURCES

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	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?		⊠		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c)	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?			⊠	
d)	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 wildlife nursery sites?		⊠		
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			×	
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?				

#### Discussion:

a) Less than significant with mitigation. Adoption of the Housing Element would not change any existing land use plans or development regulations, and no development projects are proposed in connection with adoption of the Housing Element. Therefore, no direct physical impacts to habitat or sensitive species would be caused by Housing Element adoption. Housing Element policies and programs are intended to facilitate residential development consistent with existing General Plan requirements and development regulations contained in the Municipal Code, as well as applicable regulations adopted by other governmental agencies

including but not limited to the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.

Indirect impacts to biological resources could result from future residential development facilitated by the Housing Element. However, most of this development would occur within the Mixed Use Overlay Zone, which is highly urbanized. Research conducted during the General Plan update noted that the California Natural Diversity Database identified only one sensitive species (Hoary bat) in the Mixed Use Overlay area, and the California Department of Fish and Game indicated that there is marginal foraging habitat within the city for the Hoary bat, a State Species of Special Concern, and no impacts to roosting individuals would be expected because the habitat the bats prefer (areas with dense foliage of woodlands and forests with medium to large size trees that have ground cover of low reflectivity) does not occur within the City limits. (California Department of Fish and Game, 2009). In addition, General Plan Implementation Program 2.2 includes a requirement to "Initiate consultation with the appropriate Federal or State agencies and require a biological survey prior to the disturbance of any area where there is the potential for a special-status biological species, avian migratory or raptor species, or other protected species to be present." If in the future additional information becomes available indicating that sensitive species could be impacted by a specific housing development project, potential impacts would be assessed and mitigated in consultation with resource agencies. In order to reduce potential impacts to sensitive species resulting from future housing development would to less than significant levels, the following mitigation measure will be required of future housing projects on sites where there is potential for special-status biological resources :.

<u>BR 1</u>- Applicable projects must comply with General Plan Implementation Program 2.2 to conduct a biological survey prior to the disturbance of any area where there is potential for a special-status biological species, avian migratory or raptor species, or other protected species to be present and undergo consultation with appropriate State and Federal Agencies if appropriate.

- b) <u>Less than significant</u>. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, streams, lakes, and bogs. According to the U.S. Fish and Wildlife Service Wetlands Mapper, there are no wetlands or riparian habitat identified in the area where new housing development is anticipated. Therefore, impacts to riparian habitat or other sensitive natural community resulting from future housing development would be less than significant.
- c) <u>Less than significant</u>. According to the U.S. Fish and Wildlife Service Wetlands Mapper, there are no wetlands identified in the area where new housing development is anticipated. Therefore, impacts to riparian habitat or other sensitive natural community resulting from future housing development would be less than significant.
- d) Less than significant with mitigation. The area where the Housing Element would facilitate future housing development is highly urbanized and no migratory wildlife corridors or nursery sites exist within the area; therefore, the Housing Element would not cause a significant impact on these resources. Further, any future development facilitated by the Project that included vegetation removal that could impact nesting birds or raptors would be required to be completed in compliance with the Migratory Bird Treaty Act (16 USC Sections 703-712). Potential impacts would be identified and appropriate mitigation would be required to avoid or reduce impacts consistent with resource agency regulations. The following mitigation measure will be required of future housing projects involving vegetation removal that could impact birds protected by the Migratory Bird Treaty Act:

**BR-2** If, during the course of construction for a housing project, it is necessary to trim or remove vegetation that could impact nesting birds or raptors, the work shall be completed in compliance with the Migratory Bird Treaty Act (16 USC Sections 703-712)

e)	<u>Less than significant</u> . The City does not have any local policies or ordinances protecting biological resources in urban areas. Therefore, future housing development facilitated by the Housing Element would not conflict with any local policies or ordinances protecting biological resources.
f)	<u>Less than significant</u> . There are no local habitat conservation or natural community conservation plans within the city.

#### 5. CULTURAL RESOURCES

Wo	Would the adoption or implementation of the Housing Element:						
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact		
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			$\boxtimes$			
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		×				
c)	Disturb any human remains, including those interred outside of formal cemeteries?		×				

#### Discussion:

a) Less than significant. CEQA requires an evaluation of project impacts on historic resources, including properties "listed in, or determined eligible for listing in, the California Register of Historical Resources [or] included in a local register of historical resources." In analyzing the historic significance of properties located within the study area, various criteria for designation under federal, state, and local landmark programs were considered and applied. However, pursuant to CEQA Section 15064.5(a)(4), "[t]he fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources...or identified in an historical resource survey...does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1."

The City of Beverly Hills adopted Ordinance 12-O-2617 in 2012 establishing a Historic Preservation Program. As part of this program local landmarks can be designated in the city. The following properties are located in the Mixed Use Overlay area where future housing development would be facilitated by the Housing Element and are designated local landmarks:

- 325-333 S. La Cienega Boulevard, Beverly Hills Water Treatment No. 1
- 8440 Wilshire Boulevard, Saban Theater
- 8423 Wilshire Boulevard, Clock Drive-in Market
- 8554 Wilshire Boulevard, Fine Arts Ahrya Theater
- 9101-9111 Wilshire Boulevard, Gibraltar Square Kate Mantilini Building
- 9145 Wilshire Boulevard, Ahmanson Bank and Trust Building, Millard Sheets
- 9300 Wilshire Boulevard, Wilshire-Rexford Office Building
- 9528 Wilshire Boulevard, Beverly Wilshire Hotel

In addition, the California Register of Historic Resources "California Historical Landmarks" lists the following landmark within the Mixed Use Overlay:

• No. 665 Portola Trail Campsite, 2, 325 S. La Cienega Boulevard between Olympic and Gregory

Historic districts are unified geographic entities that contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally. No portion of the Mixed Use Overlay zone is within a historic district.

Adoption of the Housing Element would not authorize development of any specific project. Any future housing proposal for development that could affect a historic resource would be required to comply with the City's Historic Preservation Ordinance, which would reduce potential impacts to a level that is less than significant. In addition, future proposals for housing would undergo any necessary CEQA review to consider and address potential impacts, as categorical exemptions would not be applicable to projects with the potential to impact a historic resource.

b) Less than significant with mitigation. According to the Negative Declaration prepared for the City's 2010 General Plan update, no archaeological resources were identified during a records search conducted at the South Central Coastal Information Center (2009) and potential for the existence of archaeological resources is low due to previous construction-related ground disturbing activities. In addition, the 2020 Cultural Resources Study prepared as part of the EIR for the One Beverly Hills Overlay Specific Plan, which is immediately adjacent to the western portion of the Mixed Use Overlay area, stated that "The CHRIS (California Historic Resources Information System) and SLF (Sacred Lands File) searches conducted for this study failed to identify any archaeological resources within the project site or a 0.25-mile radius around it. ... Previous environmental documentation concluded that no known archaeological resources or human remains exist on the project site or its vicinity." Because the Mixed Use Overlay area has been completely developed with commercial uses, it is likely that any archaeological resources that may have existed have been disturbed or destroyed by prior grading and construction. General Plan Policies HP 1.8 and HP 1.9 require all construction work to cease if a potential archaeological or paleontological resource is discovered and only continue once the potential resource has been evaluated. General Plan Implementation Program 2.2 – Development Review Process includes the following requirement:

**Consultation for Archeological Resources**. In the event that any prehistoric or historic subsurface archaeological features or deposits are discovered, require that City officials (be) notified, and that all earth disturbing work within a 100-meter radius of a potential resource be temporarily suspended or redirected. Work shall not resume in the area until after the find is appropriately mitigated.

In order to ensure that potential impacts to archaeological resources would be less than significant, the following mitigation measure will be required of applicable housing development that is facilitated by the Project:

- **CR 1-** In the event that any prehistoric or historic subsurface archaeological features or deposits are discovered during the course of construction, the project applicant must notify City officials, and temporarily suspend or redirect earth disturbing work within a 100 meter radius of a potential resource. Work shall not resume in the area until after the find is appropriately mitigated. Potential mitigations could include:
  - Retaining a qualified professional archeologist to assess the nature, extent, and significance
    of the archeological features or deposits.
  - If the features and/or deposits are determined to be significant by the archeologist, the archaeologist shall identify appropriate actions to mitigate impacts to the features and/or deposits including but not limited to, avoidance, documentation, or other appropriate actions.
  - Requiring the qualified professional archeologist to provide all workers associated with earth disturbing work an orientation regarding directions to be taken if cultural resources are discovered.

- Undertaking a data collection effort to map archeological features/deposits
- Curation of the artifacts as specified by the archeologist.
- c) Less than significant with mitigation. Future housing development facilitated by the Housing Element would include grading and construction that could disturb human remains, if they exist on the site. As noted in paragraph b) above, there are no known archaeological resources or former cemeteries within the Mixed Use Overlay area where future housing development is anticipated. The treatment of human remains is regulated by California Health and Safety Code Section 7050.5 and the treatment of Native American human remains is further prescribed by California Public Resources Code Section 5097.98. Required compliance with these State laws would avoid or substantially reduce impacts related to potential disturbance of human remains to a level that is less than significant. Therefore, the following mitigation measure will be required for projects facilitated by the Housing Element:
  - CR 2 Projects must adhere to the requirements of State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. If human remains are unearthed during construction, State Health and Safety Code Section 7050.5 states that pursuant to Public Resources Code Section 5097.98, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition of the remains. If the remains are determined to be of Native American descent, then the coroner must notify the Native American Heritage Commission within the prescribed time period.

#### 6. ENERGY

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			×	
,	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			×	

#### Discussion:

a) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element; however, future development facilitated by the Housing Element would include construction and ongoing operation of residential or mixed-use buildings that would require energy use.

<u>Construction Activities</u>. Development facilitated by the Housing Element would be required to utilize fuel-efficient equipment consistent with State and Federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in Title 13 of the CCR, and fuel requirements for stationary equipment in accordance with Section 93115 (concerning Airborne Toxic Control Measures) in Title 17 of the CCR, which would reduce unnecessary consumption of energy. These regulations would substantially reduce wasteful, inefficient, and unnecessary consumption of energy to a level that is less than significant.

Ongoing Operations. After occupancy, energy would be consumed for multiple purposes including heating/ventilation/air conditioning, lighting, operation of utilities, and transportation. Compliance with Title 24 standards and applicable CalGreen requirements would substantially reduce the amount of energy used by buildings. Use of energy for transportation would be substantially reduced through required compliance with State and Federal corporate average fuel economy (CAFÉ) standards for vehicle efficiency. In addition, new housing development facilitated by the Housing Element would occur primarily within high quality transit corridors, which would encourage the use of public transit and minimize VMT and the related use of energy for transportation. Further, most new development in the mixed use zone will be replacing older buildings with new construction, which will generally result in greater energy efficiency due to the more stringent building code standards and advances in building technology. For these reasons, impacts related to the potential for wasteful or inefficient energy use would be less than significant.

b) Less than significant. In 2009 the City adopted the Beverly Hills Sustainable City Plan (2009), which establishes the goal to "Encourage the use of energy in a clean and efficient manner and the use of renewable energy sources." Any future development project facilitated by the Housing Element would be required to comply with the most current version of California's Title 24 standards, which substantially reduce the use of energy. Therefore, future developments would be consistent with the applicable Sustainable City Plan goal related to renewable energy and energy efficiency and would not conflict with or obstruct state or local plans for renewable energy and energy efficiency.

#### 7. GEOLOGY AND SOILS

Wo	Would the Housing Element and/or its implementation:						
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact		
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.			⊠			
	ii) Strong seismic ground shaking?			×			
	iii) Seismic-related ground failure, including liquefaction?			X			
	iv) Landslides?			X			
b)	Result in substantial soil erosion or the loss of topsoil?			X			
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?			×			
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			×			
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?						
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			×			

# Discussion:

- a.i) <u>Less than significant</u>. There are three active and potentially active seismic faults located in the city: the Hollywood Fault, the Santa Monica Fault, and the Newport-Inglewood Zone of Deformation (Attachment 4). If new buildings facilitated by the Housing Element were constructed on a site subject to fault rupture during an earthquake, substantial damage and injury could occur. The General Plan Safety Element establishes the following policies related to this issue:
  - S 5.1 Safety Standards. Require new development and redevelopment to be in compliance with seismic and geologic hazard safety standards, including design and construction standards that regulate land use in areas known to have or to potentially have, significant seismic and/or other geologic hazards.
  - S 5.2 Building and Fire Codes. Continue to update the City's building and fire codes once every three years, or whenever the State updates the California building and fire codes, to reflect the highest and best available standards for seismic design and performance of buildings and to conform to State requirements.

The City's Building Codes (BHMC Title 9) include specific design and construction requirements intended to avoid or reduce the risk of damage to structures or personal injury that could result from proximity to earthquake faults. No specific development project is proposed at this time in connection with adoption of the Housing Element; however, any future development facilitated by the Housing Element must comply with applicable Building Code requirements. Implementation of Building Code requirements during the plan check and building inspection process would reduce potential impacts to a level that is less than significant.

- a.ii) Less than significant. Beverly Hills is located in a seismically active region prone to earthquakes, which may result in hazardous conditions. Earthquakes and ground motion can affect a wide-spread area. The potential severity of ground shaking depends on many factors, including the distance from the originating fault, the earthquake magnitude, and the nature of the earth materials beneath the site. The most serious impacts associated with ground shaking would occur if the structures were not properly constructed according to seismic engineering standards. As discussed in Section a.i above, all new buildings must comply with Building Code requirements regarding seismic safety. Required compliance with Building Code standards will reduce impacts to a level that is less than significant.
- a.iii) Less than significant. Portions of the city are in a mapped liquefaction area (Attachment 4). As discussed in Section a.i above, all new buildings must comply with Building Code requirements regarding seismic safety, including soils conditions including the potential for liquefaction. Required compliance with Building Code standards will reduce impacts to a level that is less than significant.
- a.iv) Less than significant. As seen in Attachment 4, landslide risks are limited to the hilly areas in the northern part of the city. The topography of the Mixed Use Overlay area where most future housing development facilitated by the Housing Element would occur is not within hillside areas where landslides could occur. However, any housing development, such as accessory dwelling units, that may be proposed in areas that could be subject to landslides must comply with Building Code requirements intended to reduce this risk. Impacts would therefore be less than significant.
- b) Less than significant. The highest risk of erosion with future developments facilitated by the Housing Element would occur during grading, excavation and site preparation. All construction must demonstrate compliance with the California Stormwater Quality Association Best Management Handbook, which requires that erosion control measures be implemented through the use of effective Best Management Practices (BMPs) per BHMC Section 9-4-507. With implementation of the Best Management Handbook and compliance with South Coast Air Quality Management District Rule 403, which regulates fugitive dust control, potential impacts regarding soil erosion or the loss of topsoil would be less than significant.
- c) <u>Less than significant.</u> As noted in the previous sections, the area where most future housing development is anticipated is generally flat and not located in an area that is prone to landslides. While Beverly Hills has

experienced limited subsidence (Beverly Hills Technical Background Report, 2005), any development in the city is required to meet Building Code requirements regarding soil stability. Applicable requirements regarding building design and construction would reduce potential effects related to unstable soil conditions to a level that is less than significant.

- d) <u>Less than significant.</u> Expansive soils are among the geotechnical conditions that are addressed in the Building Code. Any future development facilitated by the Housing Element would be reviewed for potential hazards related to soil conditions, including expansive soils, and must comply with Building Code design and construction requirements that may be necessary to mitigate soil conditions. These requirements would reduce potential effects related to expansive soils to a level that is less than significant.
- e) <u>Less than significant.</u> No development facilitated by the Housing Element would require the use of septic tanks or alternative wastewater disposal systems. Therefore, impacts would be less than significant.
- f) Less than significant. The areas where future housing development is anticipated are highly urbanized and no unique geologic features or paleontological resources have been identified. General Plan Policies HP 1.8 and HP 1.9 require all construction work to cease if a potential archaeological or paleontological resource is discovered and only continue once the potential resource has been evaluated. Therefore, potential impacts to unique paleontological resources or unique geological features would be less than significant.

# 8. GREENHOUSE GAS EMISSIONS

Wo	Would adoption or implementation of the Housing Element:					
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact	
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			×		
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			×		

#### Discussion:

a) Less than significant. Adoption of the Housing Element would not change any existing land use plans or development regulations, or authorize any development project. Therefore, no greenhouse gas (GHG) emissions would be directly caused by Housing Element adoption. Housing Element policies and programs are intended to facilitate residential development consistent with existing General Plan policies and development regulations contained in the Municipal Code, as well as applicable regulations adopted by other governmental agencies such as the South Coast Air Quality Management District.

Future residential development facilitated by the Housing Element would generate GHG emissions during construction and from transportation and energy use during ongoing operation. However, the level of GHG emissions that would be expected from development consistent with the Housing Element is considered less than significant for the following reasons:

- The City of Beverly Hills adopted a Sustainable City Plan (2009) for the purpose of reducing greenhouse gas emissions. The proposed Housing Element is consistent with the City's Sustainable City Plan, including Goal 5 "Land-Use, Transportation and Open Space," which calls for the City to foster an energy efficient, walkable community. The Housing Element would facilitate the provision of additional housing units near public transit and commercial areas, which would reduce GHG emissions by encouraging use of transit rather than commuting in private automobiles. It would also encourage residential development in a job-rich subregion, which would reduce overall VMT throughout the region.
- SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-range
  plan that addresses mobility, housing, economic, environmental, and public health goals for the region.
  One of the major purposes of the RTP/SCS is to reduce GHG emissions. The proposed Housing
  Element is consistent with the RTP/SCS in that it would facilitate infill housing development in areas
  with good access to jobs near high-quality transit corridors. The Housing Element is also consistent
  with the regional growth forecast upon which the RTP/SCS is based.
- SCAG's 2020 RTP/SCS Final Program EIR estimated that between 2019 and 2045, GHG emissions in Los Angeles County from on-road mobile sources and other transportation sources, inclusive of light and medium duty vehicles and heavy-duty trucks, would decrease by approximately 26 percent.<sup>4</sup> Total GHG emissions in the entire SCAG region from the three major GHG sources (transportation, building and water-related energy) are anticipated to decrease by 15.9 percent with Connect SoCal in 2045

<sup>&</sup>lt;sup>4</sup> SCAG, Connect SoCal Final PEIR, Table 3.8-8, 2020 (https://scag.ca.gov/program-environmental-impact-report)

compared to 2019 conditions. These three sectors account for approximately 70 percent of the total GHG emissions in the SCAG region.<sup>5</sup> Impacts would be less than significant.

b) Less than significant. In 2006, the State passed the California Global Warming Solutions Act of 2006 (AB 32), which requires the California Air Resources Board to design and implement emission limits, regulation, and other measures, such that feasible and cost-effective statewide greenhouse gas (GHG) emissions are reduced to 1990 levels by 2020. In 2008, the State legislature passed SB 375, which creates regional planning processes designed to reduce GHG emissions in accordance with AB 32. These processes tie GHG reduction targets to the region's land use and transportation strategic plans. Senate Bill 97, passed in 2007, requires analysis of climate change in CEQA documents and the California Resources Agency adopted amendments to the CEQA Guidelines to address GHG emissions. These guidelines give lead agencies the ability to set thresholds for the assessment and mitigation of GHG and climate change impacts.

In 2020 SCAG adopted *Connect SoCal*, the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that addresses mobility, housing, economic, environmental, and public health goals for the region. This plan calls for the identification of areas that are suitable for infill development and also contemplates the development of jobs and housing along high-quality transit corridors as a desirable pattern of growth in the region. All new housing development in the City is infill development and it is expected that a majority of the development that will be facilitated by the Housing Element will be located in the Mixed Use Overlay Zone, which is located along high-quality transit corridors, Therefore the Housing Element would facilitate housing development along high-quality transit corridors consistent with the RTP/SCS. In addition, as outlined in the attached technical study (Attachment 7), future projects developed under the Housing Element would be required to comply with all State and local requirements for reducing GHG emissions including, but not limited to, Title 24 Part 11 and the City's Climate Action and Adaptation Plan, which is currently under development.

For these reasons, the Housing Element would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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<sup>&</sup>lt;sup>5</sup> SCAG, Connect SoCal Final PEIR, Table 3.8-9, 2020 (https://scag.ca.gov/program-environmental-impact-report)

# 9. HAZARDS AND HAZARDOUS MATERIALS

Wo	Would the adoption and implementation of the Housing Element:					
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact	
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X		
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?			×		
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			×		
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			⊠		
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 for people residing or working in the project area?			×		
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			×		
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			×		

# Discussion:

a) Less than significant. Future development projects facilitated by the Housing Element would be residential or residential/commercial mixed use and would not involve the routine transport, use, or disposal of significant quantities of hazardous materials, nor generate hazardous emissions. Any buildings proposed to be demolished in connection with future housing development would be required by the City to be tested for asbestos and / or lead paint and required to comply with all applicable regulatory requirements and standards for such work. As outlined in BHMC 9-1-104 Section 102.9, the City would not issue a demolition permit until the applicant has submitted an asbestos abatement completion certificate by qualified contractors. California Occupational Safety and Health Administration (CalOSHA) regulates any lead-based materials exposure. The applicant would be required to comply with California Code of Regulations, §1532.1 to test, monitor and dispose of any lead-based materials to ensure they do not exceed CalOSHA standards for exposure. These regulations would reduce any risk of exposure to hazardous materials to a level that is less than significant.

- b) <u>Less than significant</u>. Future development projects facilitated by the Housing Element would be residential or residential/commercial mixed use and would not involve the use of substantial amounts of hazardous substances. Residential projects could involve the use and storage of landscape maintenance supplies such as herbicides and/or pesticides; however, the use of such materials is regulated by a number of agencies including the Los Angeles Department of Environmental Health, the City of Beverly Hills Fire Department (BHFD) and Cal OSHA. Compliance with existing regulations regarding hazardous materials would reduce potential impacts to a level that is less than significant.
- c) <u>Less than significant</u>. As noted above, future projects facilitated by the Housing Element would not involve substantial amounts of hazardous materials. Therefore, while future projects could be located within one-quarter mile of a school, required compliance with existing hazardous materials regulations would reduce this potential impact to a level that is less than significant.
- d) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element; therefore, it is not known at this time whether any future project facilitated by the Housing Element would be located on a designated hazardous materials site.

A review of the California Department of Toxic Substances Control EnviroStor website indicates that several properties that are located in the project area are or were cleanup sites, as established by Government Code section 65962.5. These sites include:

Table 2. Cleanup Sites in Beverly Hills

	Address	Site/Facility Name	Program Type	Status
1	8955 West Olympic Blvd.	Beverly Hills Lincoln Mercury	Voluntary Cleanup	No Further Action
2	243 N. Robertson Blvd.	Beverly Hills Plating Works	Tiered Permit	Referred to LA County. LA County entered into a correction action agreement with the facility
3	8816-8818 West Olympic Blvd.	Former Beverly Hills Dry Cleaners	Evaluation	No Action Required
4	605 North Whittier Drive	El Rodeo School	School Cleanup	Certified O&M – Land Use Restrictions Only
5	241 Moreno Drive	Beverly Hills High School	School Cleanup	Active
6	624 North Rexford Avenue	Hawthorne School Modernization	School Investigation	No Action Required
7	9315 Civic Center Drive	Union Pacific Railroad Beverly Hills	Voluntary Cleanup	Active
8	9175 Civic Center Drive	Beverly Hills Lot 12 & 13	Voluntary Cleanup	Active
9	8701 Charleville Boulevard	Horace Mann School	School Cleanup	No Further Action

As described in this study, a majority of the development facilitated by the Project is expected to occur in the Mixed Use Overlay Zone. Sites number one through three in the table above are located in this zone. if any future development is proposed on a designated hazardous materials site, the project will be required to comply with applicable regulations regarding hazardous materials such as those administered by the Department of Toxic Substances Control, the County Health Department and the City Fire Department. The proposed project does not include demolition or construction and any project proposed in the project area in the future will be subject to all rules and regulations that apply to cleanup sites and will be subject to further CEQA review at the time of project proposal.

Required compliance with applicable regulations would reduce potential impacts to a level that is less than significant.

- e) <u>Less than significant</u>. The nearest aviation facilities are the Santa Monica Airport, located approximately three miles west of Beverly Hills, and the Los Angeles International Airport, located approximately ten miles to the south of the city. Beverly Hills does not fall within either airport's land use plan. Therefore, potential impacts related to future developments facilitated by the Housing Element would be less than significant.
- f) Less than significant. Future housing developments facilitated by the Housing Element would not interfere with the City's emergency operations plan or with any major emergency evacuation routes out of the area. The City is largely developed in a grid pattern, which facilitates evacuation from most areas if and when necessary. The vast majority of the housing development anticipated to occur as a result of the Housing Element is located in areas of the City that are developed on a grid pattern, and these areas are located a substantial distance from the Hillside Areas that are more limited in terms of evacuation routes. When projects are proposed in the future, site-specific development plans must demonstrate that adequate emergency access will be provided subject to approval of the City Fire Department. In addition, per existing City Fire Department regulations, evacuation plans, and procedures would be required to be incorporated into building and site design. During construction, temporary street closures may be necessary. Existing City regulations require the review and approval of such lane closures and preparation and implementation of a traffic management plan ensuring that adequate emergency access will be maintained. Impacts would be less than significant.
- g) <u>Less than significant</u>. The northern portion of the city north of Sunset Boulevard is designated by the California Department of Forestry and Fire Protection (Cal Fire) as a Very High Fire Hazard Severity Zone, indicating a high level of risk due to wildland fire. Future housing developments facilitated by the Housing Element are located primarily within the Mixed Use Overlay, which is a highly urbanized area and not within a designated fire hazard zone. In addition, development that does occur within the northern portion of the city would mostly consist of either the redevelopment of existing single family residences and/or the development of ADUs. The primary fire risk in such areas is structure fires as opposed to wildland fires. Therefore, impacts related to wildland fire hazards would be less than significant.

# 10. HYDROLOGY AND WATER QUALITY

Wo	Would the project:					
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact	
a)	Violate any water quality standards or waste discharge requirements?			X		
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			⊠		
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;			☒		
ii)	substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			×		
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; or			×		
iv)	impede or redirect flood flows?			×		
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X		
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X		

# Discussion:

a) <u>Less than significant</u>. Potential impacts to surface water or groundwater resulting from future projects facilitated by the Housing Element could be caused by grading and construction activities that expose soil to erosion, or that result in the release of contaminants such as oil, fuels or other chemicals used by construction equipment that could be washed into surface waters or seep into groundwater.

Chapter 4, Article 5 of Title 9 of the Municipal Code (Stormwater and Urban Runoff Pollution Control) establishes requirements for both existing properties and development activities intended to eliminate or reduce impacts to surface water or groundwater. These requirements include implementation of best management practices (BMPs) to control erosion and protect the quality of surface water runoff during construction. In addition, any project would be required to comply with the regulations established under the National Pollution Discharge Elimination System (NPDES) program to control storm water discharges during ongoing operation.

Required compliance with these regulations would reduce potential water quality impacts to a level that is less than significant.

- b) Less than significant. All future development projects facilitated by the Housing Element would obtain water from the municipal water system rather than individual wells; therefore, such projects would not have the potential to decrease groundwater supplies directly. In addition, to the extent that there is increased demand associated with the Project, the City's water utility has been actively expanding its capacity to extract and treat groundwater for use including a rehabilitation of the Foothill Water Treatment Plant, which is currently underway and is expected to treat approximately 3 million gallons per day of local groundwater and provide approximately 25% of the City's annual water demand<sup>6</sup>. Further, the City has recently completed construction of a new well in the City of Los Angeles near the City of Beverly Hills and is locating two additional well sites in the La Brea Subarea for additional water supply in the near future (City of Beverly Hills 2020 Urban Water Management Plan). Water quality regulations requiring retention of stormwater onsite would ensure that developments do not interfere substantially with groundwater recharge. Any proposed dewatering of project sites during construction requires a dewatering permit pursuant to BHMC § 9-4-610 and requires that projects use all extracted groundwater, thereby minimizing the loss of groundwater. For these reasons, potential impacts to groundwater would be less than significant.
- c) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element. Most of the future housing development facilitated by the Housing Element would occur on previously-developed properties in the Mixed Use Overlay zone, previously developed properties in the multi-family zone, or currently developed sites in single family zones (for construction of new ADUs). Because these areas are completely developed, no substantial alteration to existing drainage patterns would occur. Drainage for these areas is provided by the street system and storm drains, and no substantial changes to those drainage facilities would be anticipated. Due to existing development, a large portion of the area where future housing is anticipated is covered by impervious surfaces; therefore, no substantial increase in impervious surfaces would occur as a result of future redevelopment and no significant increase in the rate or amount of surface runoff that would result in flooding is expected.

Further, All development projects would be required to comply with BHMC § 9-4-508: "Planning and Land Development Program Requirements for New Development and Redevelopment; Low Impact Development" which requires conformance with the current municipal NPDES permit to lessen the water quality impacts of development by using smart growth practices, and integrating low impact development practices and standards for stormwater runoff and pollution mitigation. Required compliance with existing regulations would reduce impacts to a level that is less than significant. The City of Beverly Hills is a highly urbanized area that does not contain streams or rivers and the proposed project would not impede or redirect flood flows. Potential Impacts would be less than significant.

d) Less than significant. The Federal Emergency Management Agency (FEMA) has classified the City of Beverly Hills under Flood Zone C, which does not require flood mitigation enforcement and is considered an area of minimum flood hazard. Some portions of the project area are located in a portion of the City that has historically experienced flooding (City of Beverly Hills Hazard Mitigation Action Plan, 2017-2022), however no recent flooding has taken place in this area and the flood risk has been minimized through the completion of the Los Angeles County Flood Control District's Holly Hills Unit 7 Storm Drain Project. In addition, the areas where the majority of future housing development is anticipated are located approximately 5 miles east of the Pacific Ocean and are not near any lake, river or large body of water; therefore, the risk of inundation and the release of pollutants due to inundation is low. Portions of the City north of Carmelita Drive would be in the inundation path should there be a breach of the Lower Franklin Canyon Reservoir (City of Beverly Hills General Plan Update Negative Declaration and Environmental Initial Study, 2010), however as stated, housing development facilitated by the Project in this area is expected to minimal (replacement of existing single family homes and the construction of ADUs) all of which would be required to comply with regulations pertaining to soil stability and runoff. Therefore, no impact would occur. The City's Safety Element does not identify mudflows and seiches as dangers in the City. Any future

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<sup>&</sup>lt;sup>6</sup> City of Beverly Hills Urban Water Management Plan. www.beverlyhills.org/uwmp

development in the Project area would be required to comply with City permit requirements to ensure soil stability and flooding. Therefore, no impacts would occur as a result of the project and no mitigation measures would be required. Potential impacts would be less than significant.

e) Less than significant. Any new development facilitated by the Housing Element will be required to implement best-management practices (BMPs) that meet or exceed local, State and Federal mandated guidelines for storm water treatment to control erosion and to protect the quality of surface water runoff during the construction period. In addition, any project would be required to comply with the regulations established under the National Pollution Discharge Elimination System (NPDES) program to control storm water discharges. Implementation of BMPs would ensure that project-related water quality impacts during construction would be less than significant. Additionally, any proposed development would be required to meet the BHMC 9-4-508 (Planning and Land Development Program; Low Impact Development) requirements for new development and redevelopment. These requirements apply to construction activities and facility operations and are meant to lessen the water quality impacts of development by using smart growth practices, and integrating Low Impact Development (LID) standards for stormwater pollution mitigation into projects. Potential impacts would be less than significant.

# 11. LAND USE AND PLANNING

Wc	ould the project:			
	Environmental Issues	Potentially Significant Impact	Less Than Significant Impact	No Impact
a)	Physically divide an established community?		$\boxtimes$	
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?		×	

# Discussion:

- a) Less than significant. New housing development facilitated by the Housing Element would occur primarily within the Mixed Use Overlay Zone, which is fully urbanized. In addition, the Mixed Use Overlay Zone is concentrated along existing commercial corridors in the City. Therefore, any housing developed in this zone would not divide existing multi-family or single family neighborhoods and the construction of housing in these areas is meant to provide vitality along these corridors and lessen the sense of division that already exists between existing residential neighborhoods due to the commercial corridors. Development would be infill on previously developed sites, and no new infrastructure such as freeways or utility transmission lines is proposed in connection with the Housing Element, and, as described in this study, no other new facilities are expected to be required in connection with the adoption or implementation of the Housing Element. Therefore impacts would be less than significant.
- b) <u>Less than significant.</u> New housing development facilitated by the Housing Element would be required to adhere to applicable plans, policies, regulations and development standards adopted to avoid or mitigate environmental impacts including but not limited to:
  - General Plan Land Use Policy LU 14.1 "City Form: Accommodate a balanced mix of land uses and encourage development to be located and designed to enable residents access by walking, bicycling, or taking public transit to jobs, shopping, entertainment, services, and recreation, thereby reducing automobile use, energy consumption, air pollution, and greenhouse gases"
  - Housing Element Policy 2.8 "Transit Oriented Housing: Promote access, where feasible, from residential neighborhoods and new residential development to existing transit stops and to the anticipated subway stations."
  - Housing Element Policy 2.9 "Jobs/ Housing Balance. Promote programs seeking to provide housing
    opportunities for people who work in the City as a means of reducing long commutes, easing local
    traffic, improving air quality and helping to achieve a balanced regional jobs/housing distribution for
    the western portion of Los Angeles County."
  - Safety Element Policy S 4.1 "Flood Mitigation Design. Require that new development incorporate sufficient measures to mitigate flood hazards, including the design of onsite drainage systems linking with citywide storm drainage, gradation of the site so that runoff does not impact adjacent properties or structures on the site, and elevation of the structures above any flooding elevation."
  - Safety Element Policy S 5.1 "Safety Standards. Require new development and redevelopment to be in compliance with seismic and geologic hazard safety standards, including design and construction standards that regulate land use in areas known to have or to potentially have, significant seismic and/or other geologic hazards."

•	Applicable permits that are required for new construction that are meant to avoid or mitigate an
	environmental impact including but not limited to zoning code standards, building code standards,
	best management practices, and LID standards.

The Project does not conflict with any such plans, policies, regulations and development standards that are adopted to avoid or mitigate environmental impacts.

# 12. MINERAL RESOURCES

Would the project:						
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation		No Impact	
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?					
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?				×	

# Discussion:

- a) No impact. The areas where future housing development would be facilitated by the Housing Element are highly urbanized and contain no mining activity. This area is located in Mineral Resource Zone MRZ-1 and MRZ-3 as defined by the Division of Mines and Geology Mineral Classification System (City of Beverly Hills General Plan Conservation Element, 2010). MRZ-1 areas are areas of no mineral resource significance, and MRZ-3 areas have undetermined mineral resource significance (California Department of Conservation). There is oil extraction that occurs under portions of the City, however, all surface facilities are located outside of the City and outside the Project area because such surface facilities are no longer permitted in the City. Therefore, potential impacts would be less than significant.
- b) No impact. There are no mineral resource recovery sites delineated in the City's General Plan or other plan. The only mineral resources identified in the General Plan Conservation Element are oil and gas resources. The Conservation Element contains policies to prohibit new drill sites in new locations within the City for production of oil, gas, or other hydrocarbon substances (Policy 21.1); and to develop a plan to phase out existing oil drilling sites as soon as practicable (Policy 21.2). Future development implementing the Housing Element therefore would not result in the loss of availability of a locally important mineral resource recovery site. Potential impacts would be less than significant.

# 13. NOISE

	Environmental Issues	Potentially Significant Impact	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		×	
b)	Generation of excessive groundborne vibration or groundborne noise levels?		×	
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, would the Housing Element and/or its implementation expose people residing or working in the project area to excessive noise levels?		×	

# Discussion:

a) Less than significant. Future residential developments facilitated by the Housing Element would be expected to generate short-term construction-related noise, including groundborne vibration. A noise study was completed in order to assess the indirect potential noise impacts from the implementation of the Housing Element (Attachment 8). As described in this study, any future development would be required to be completed in compliance with the City's noise regulations and restrictions on construction hours (BHMC Title 5, Chapter 1) in order to protect adjacent uses from noise related impacts. Further, future development projects will be required to conduct their own CEQA analysis, taking into account project specifics.

Future residential developments facilitated by the Housing Element would be expected to generate long-term noise from human activity and other sources such as mechanical equipment (air conditioners, etc.) and from motorized transportation. Required compliance with the City's noise regulations (BHMC Title 5, Chapter 1) would reduce noise impacts from human activity and mechanical equipment to a level that is less than significant. In addition, the Housing Element would facilitate housing development in close proximity to high quality transit corridors, which would encourage the use of public transit and reduce the need for private automobile trips, thereby reducing VMT and related vehicular noise. Further, the attached noise study indicates concludes that the proposed Housing Element would not "result in a 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". Impacts would be less than significant.

- b) Less than significant. Future residential developments facilitated by the Housing Element would be expected to generate short-term construction-related groundborne vibration due to use of heavy equipment during demolition, excavation, grading and site preparation. Construction that involves blasting or pile driving is not permitted in the City, which will eliminate these impacts related to construction noise and vibration. Required compliance with the City's noise regulations and restrictions on construction hours (BHMC Title 5, Chapter 1) would reduce these impacts to a level that is less than significant.
- c) <u>Less than significant</u>. The areas where future development would be facilitated by the Housing Element are not within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport. The nearest aviation facilities are the Santa Monica Airport, located approximately three miles west of

Beverly Hills, and the Los Angeles International Airport, located approximately ten miles to the south of the city. Beverly Hills does not fall within either airport's land use plan. There are no private airstrips located within the City of Beverly Hills or within its immediate vicinity. Impacts would be less than significant.

# 14. POPULATION AND HOUSING

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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)?			×	
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			×	

# Discussion:

a) <u>Less than significant</u>. Future development facilitated by the Housing Element would be consistent with the City's General Plan and zoning (including the Mixed Use Overlay Zone), as well as the adopted regional Growth Forecast. The more conservative analysis assuming the scenario of future development of the entire RHNA allocation of 3,104 units in the City, which is a number that the City is required to plan for, and is also consistent with the City's current General Plan and zoning, and would not constitute unplanned population growth, and would therefore represent a less than significant impact.

Assuming the Growth Forecast scenario which represents the anticipated growth in population, as opposed to the housing need (represented by the RHNA) would also represent a less than significant impact because it is planned population growth. As described earlier in this study, the RHNA allocations describe housing need, as opposed to expected housing development. The RHNA is not a prediction of likely future housing development. Rather, the RHNA is intended to identify the amount of additional housing at various income levels each city would need in order to provide housing for every household expected to live in the city during the 8-year RHNA period while also eliminating all overcrowding and overpayment for both existing and new households.

Anticipated housing development would be located in a jobs- and transit-rich area, which would accommodate growth in a way that would reduce VMT and greenhouse gas emissions. The anticipated population growth from the Project is consistent with the adopted regional growth forecast and is also therefore not unplanned. Impacts would be less than significant.

b) Less than significant. Future development facilitated by the Housing Element would occur primarily within the Mixed Use Overlay Zone where no housing currently exists; therefore, substantial numbers of people or housing would not be displaced. In fact, the City of Beverly Hills, when adopting the Mixed Use zone, considered the fact that this zoning would result in net new housing units and would provide housing opportunities without displacing existing residents. In addition, California Government Code Sec. 66300 requires that any housing units demolished as part of a housing development project must be replaced. Impacts would be less than significant.

# 15. PUBLIC SERVICES

Would the adoption or implementation of the Housing Element and Safety Element result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Environmental Issues	Less Than Significant With Mitigation		No Impact
a)	Fire Protection?		$\boxtimes$	
,	Police Protection?		☒	
c)	Schools?		☒	
d)	Parks?		⊠	
e)	Other public facilities?		$\boxtimes$	

# Discussion:

- a) Less than significant. Fire protection is provided by the City of Beverly Hills Fire Department. No specific development project is proposed at this time in connection with adoption of the Housing Element. No changes to current land use plans are proposed; therefore, projected demand for fire protection services would not be increased as a result of Housing Element adoption. When future projects facilitated by the Housing Element are proposed, the need for public services, including fire protection, will be analyzed to determine whether facilities are adequate to serve the development. Development facilitated by the Housing Element would occur in areas of the City that are already developed; therefore, any new development would be replacing existing buildings where fire protection services are already provided. All proposed projects are required to meet applicable fire and building codes, and Beverly Hills Fire Department standards to ensure public safety. The City of Beverly Hills Fire Department does not currently anticipate the need for new facilities in the foreseeable future and no such facilities are included in City budget documents. If in the future the City determines that new fire protection facilities are needed to maintain acceptable service levels, additional CEQA review would be required for such facilities. Required compliance with existing regulations would reduce potential impacts to a level that is less than significant.
- b) Less than significant. Police protection is provided by the City of Beverly Hills Police Department. No specific development project is proposed at this time in connection with adoption of the Housing Element. No changes to current land use plans are proposed; therefore, projected demand for police protection services would not be increased as a result of Housing Element adoption. When future projects facilitated by the Housing Element are proposed, the need for public services, including police protection, will be analyzed to determine whether facilities are adequate to serve the development. Development facilitated by the Housing Element would occur in areas of the City that are already developed; therefore, any new development would be replacing existing buildings where police protection services are already provided. The Police Department does not currently anticipate the need for new facilities in the foreseeable future and no such facilities are included in City budget documents. If in the future the City determines that new police protection facilities are needed to maintain acceptable service levels, additional CEQA review would be required for such facilities. Potential impacts would be less than significant.
- c) <u>Less than significant</u>. Future housing development facilitated by the Housing Element would be located in the Beverly Hills Unified School District (BHUSD). Impacts to public services, including schools, will be analyzed for specific projects at the time a project is proposed. Any future developer would be required to

pay school fees as established by BHUSD. As outlined in Section 65995(3)(h) of the California Government Code, the payment of such fees should be considered complete mitigation of the impacts of any legislative or adjudicative act and thus the payment of these fees is considered mitigation of potential project impacts under CEQA. If any new or expanded school facilities are proposed, they will be subject to CEQA review conducted by BHUSD as lead agency. Potential impacts from the housing element adoption would be less than significant.

- d) Less than significant. The Beverly Hills Recreation and Parks department is responsible for the management and operation of parks in the city. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no changes to current land use plans are proposed; therefore, projected population growth and corresponding demand for parks and recreation would not be increased as a result of Housing Element adoption. When future housing developments facilitated by the Housing Element are proposed, the need for public services, including parks, will be analyzed to determine whether services are adequate to serve the development. Beverly Hills Municipal Code Section 3-1-703 requires developers to pay a Parks and Recreation Facilities Tax to fund public parks and offset any impacts associated with new development. If in the future the City determines that new parks and recreation facilities are needed to maintain acceptable service levels, additional CEQA review would be required for such facilities. Therefore, impacts would be less than significant.
- e) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no changes to current land use plans are proposed; therefore, projected population growth and corresponding demand for other public services, including storm drains, solid waste facilities, water and wastewater facilities, would not be increased as a result of Housing Element adoption. Each future housing development facilitated by the Housing Element would contribute incrementally to the need for public services, and capital improvement plans are typically based upon anticipated future development consistent with the adopted growth forecast. If in the future the City determines that new facilities are needed to maintain acceptable service levels, additional CEQA review would be required for such facilities. Therefore, impacts would be less than significant.

# 16. RECREATION

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Would the Housing Element and/or its implementation 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?				
b)	Does the Housing Element and/or its implementation include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			×	

# Discussion:

- a) Less than significant. The Beverly Hills Recreation and Parks department is responsible for the management and operation of parks in the city. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no changes to current land use plans are proposed; therefore, projected population growth and corresponding demand for parks and recreation would not be increased as a result of Housing Element adoption. When future housing developments facilitated by the Housing Element are proposed, multi-family units would be required to provide private open space for the use of residents, and Beverly Hills Municipal Code Section 3-1-703 would require the payment of a Parks and Recreation Facilities Tax to fund public parks. The required provision of private open space in new developments would substantially reduce demands on public parks caused by new residents, and additional parks and recreation fees would contribute to acquisition, improvement and expansion of park facilities, thereby reducing the likelihood that substantial physical deterioration would occur. Therefore, impacts would be less than significant.
- b) Less than significant. The Beverly Hills Recreation and Parks department is responsible for the management and operation of parks in the city. No new park or recreation facilities are proposed in connection with the Housing Element. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no changes to current land use plans are proposed; therefore, projected population growth and corresponding demand for parks and recreation would not be increased as a result of Housing Element adoption. When future housing developments facilitated by the Housing Element are proposed, the need for public services, including parks, will be analyzed to determine whether services are adequate to serve the development. Beverly Hills Municipal Code Section 3-1-703 requires developers to pay a Parks and Recreation Facilities Tax to fund public parks and offset any impacts associated with new development. If in the future the City determines that new parks and recreation facilities are needed to maintain acceptable service levels, additional CEQA review would be required for such facilities. Therefore, impacts would be less than significant.

# 17. TRANSPORTATION

Wo	uld the adoption or implementation of the Housing Element:				
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			×	
d)	Result in inadequate emergency access?			×	

# Discussion:

a) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no changes are proposed to existing plans, policies or regulations addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The Housing Element would facilitate the provision of new housing near mass transit and commercial areas consistent with regional transportation plans and Growth Forecast and the City's existing land use plans and development regulations. Most of the new housing expected to be built in the city during the 2021-2029 planning period would be located within the Mixed Use Overlay area shown previously in Exhibit 2. The Mixed Use Overlay is located within and adjacent to High Quality Transit Corridors and Transit Priority Areas (Attachment 5).

The draft Housing Element is consistent with various land use and planning goals and policies in the General Plan , which call for the City to foster an energy efficient, walkable community including: General Plan Land Use Policy LU 14.1 "City Form: Accommodate a balanced mix of land uses and encourage development to be located and designed to enable residents access by walking, bicycling, or taking public transit to jobs, shopping, entertainment, services, and recreation, thereby reducing automobile use, energy consumption, air pollution, and greenhouse gases" and Housing Element Policy 2.8 "Transit Oriented Housing: Promote access, where feasible, from residential neighborhoods and new residential development to existing transit stops and to the anticipated subway stations." The Housing Element would facilitate the provision of additional housing near mass transit and commercial areas, which would help to reduce the need for commuting via private automobile and encourage non-motorized travel. The Housing Element would also encourage residential development in a job-rich subregion.

All future housing developments will be required to demonstrate compliance with applicable programs, plans, ordinances and policies related to the circulation system, including transit, roadway, bicycle and pedestrian facilities through the development review and approval process. Examples of such requirements include:

City of Beverly Hills California Environmental Quality Act (CEQA) Transportation Thresholds of Significance. In 2019, the City of Beverly Hills adopted local CEQA thresholds of significance for transportation impacts pursuant to Senate Bill 743 and CEQA Guidelines Sec. 15064.3. These thresholds identify criteria for determining whether transportation analysis is required for a development project. As part of the review process for future development projects, compliance with the transportation thresholds of significance will be required. If the analysis

- determines that significant transportation impacts could occur, a detailed analysis will be necessary and feasible mitigation measures will be required.
- Policies from the City's recently adopted Complete Streets Plan. While some of these policies
  are not yet in place, they are included in the adopted plan and will likely be adopted in the near
  future and implemented during the planning period for the Housing Element. Policies from this
  plan that may be relevant to housing projects in the future include:
  - B2-7: Explore opportunities where land dedication may be required for first/last mile connections
  - B2-8: Require new development projects on existing and potential bikeways to facilitate bicycle and pedestrian access to and through the project
  - B2-11: Explore demand for a permitting process for shared use mobility devices and create standards/guidelines
  - B3-7: Develop a bike parking ordinance commensurate with best practices that requires the installation of bike parking and shower/changing facilities on private property
  - P2-1: Provide a continuous pedestrian network that connects buildings to each other, to the street, and to transit facilities
  - V1-6: Revise the Transportation Demand and Trip Reduction Measures ordinance to include best practices for the public and private sectors
- The Beverly Hills Streets Master Plan

Impacts would be less than significant.

b) Less than significant. In 2019, the City of Beverly Hills adopted local CEQA thresholds of significance for transportation impacts pursuant to Senate Bill 743 and CEQA Guidelines Sec. 15064.3. The result is that transportation impact analyses that are conducted as part of CEQA analysis will use vehicle miles traveled (VMT) instead of level of service (LOS) as a measurement for impact. The intent is to measure the change in the miles traveled that a project may have rather than the automobile delay that may be caused by a project. Generally, the goal of this change is to encourage transportation and land use decisions that lead to reduced greenhouse gas emissions and encourage infill development. As part of the review process for future development projects, compliance with the transportation thresholds of significance will be considered. If the analysis determines that significant transportation impacts could occur, a detailed analysis will be necessary and feasible mitigation measures will be required.

It should be noted that a majority of the City of Beverly Hills, and all of the Mixed Use zone, is located in an area that is considered "Low VMT Area" by SCAG because the daily residential home based VMT per capita is more than 15% less compared to the SCAG regional average. For this reason, it is expected that most residential projects proposed in this area will be "screened out" of being required to complete VMT analysis during the CEQA review, because it is already assumed that there will be no significant impact from these new infill residential projects, representing the regional goal to focus higher density development in infill areas well served by transit.

No specific development project is proposed at this time in connection with adoption of the Housing Element. Subsequent housing development projects facilitated by the Housing Element will be required to comply with the City's CEQA thresholds of significance for transportation impacts and CEQA Guidelines section 15064.3. Adoption of the Housing Element would not conflict with CEQA Guidelines section 15064.3(bmpacts would be less than significant.

- c) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element and no changes are proposed to any policies or regulations related to transportation hazards or incompatible uses. Future development projects facilitated by the Housing Element must comply with all applicable standards and requirements regarding these issues. Examples of such requirements include Circulation Element Policies 1.1 through 1.5a and the Standard Detail Drawings<sup>7</sup>. Circulation Element Policies are provided below:
  - CIR 1.1 Roadway Improvements. Study and implement opportunities for improving traffic flow on City roadways during Peak hours. Work collaboratively with regional agencies and adjacent jurisdictions to coordinate interface of adjacent roadways. (Imp. 3.7)
  - CIR 1.2 Intersection Improvements. Study and implement opportunities for capacity improvements at City intersections, such as the intersection of Wilshire Boulevard and North Santa Monica Boulevard, to improve traffic flows along major roadways. Work collaboratively with regional agencies and adjacent jurisdictions to help improve the capacity at these intersections. (Imp. 3.7)
  - CIR 1.3 Advanced Signal Technologies. Implement advanced signal and intersection technologies that improve traffic flow and optimize traffic signal timing and coordination to reduce travel time and delay along major corridors. (Imp. 3.7)
  - CIR 1.4 Level of Service. Develop standards to address regional traffic growth through the City to promote transit ridership, biking, and walking, thereby reducing auto travel, air pollution, and energy consumption. (Imp. 3.7)
    - CIR 1.4a. Strive to maintain vehicle flow on City roadways and intersections. Congestion may be accepted, provided that provisions are made to improve the overall system and/or promote non-motorized transportation, such as bicycling and walking, as part of a development or City-initiated project. (Imp. 3.7)
    - CIR 1.4b. Strive to maintain operations on regional roadways. Regional roadways are defined as arterial facilities in which at least 25-percent of the vehicular traffic is passing through the City without an origin or destination in the City. Traffic volumes and associated congestion on regional roadways are primarily the result of land use growth in surrounding jurisdictions and out of the City's control. The City shall continue to improve operations along regional roadways, as feasible, such as by implementing advanced signal and intersection technologies that improve traffic flow and optimize traffic signal timing and coordination to reduce travel time and delay. (Imp. 3.7)
    - CIR 1.4c. Strive to maintain operations on roadways and intersections within multi-modal districts. Multi-modal districts are characterized as areas within the City served by frequent transit service, enhanced pedestrian and bicycle systems, and areas that include a combination of uses (commercial, retail, office or residential). This shall include the Business Triangle, areas within ½ mile walking distance of bus, subway and other major transit stops and stations, and designated commercial corridors. (Imp. 3.7)
    - CIR 1.4d. The City recognizes that the above road conditions may not be achieved on some roadway segments, and may also not be achieved at some intersections. On these roadways, the City shall ensure that improvements to construct the ultimate

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<sup>&</sup>lt;sup>7</sup> https://www.beverlyhills.org/cbhfiles/storage/files/filebank/5621--Standard%20Drawings%201\_reduced\_REVISED%2012-6-2011.pdf

roadway system are completed, with the recognition that maintenance of desired road conditions may not be achievable. (Imp. 3.7)

- CIR 1.5 Maintenance of Roadways. Provide regular maintenance and continue to improve operations on city streets while maintaining a minimum Pavement Condition Index (PCI) rating of 70. (Imp. 3.7)
  - CIR 1.5a Continue to conduct regularly scheduled street sweeping, vegetation management, and re-striping on roadways and bikeways, and respond in a timely manner to citizen requests regarding maintenance concerns. (Imp. 3.7)

Required compliance with these policies and standards would reduce potential impacts to a level that is less than significant, and this issue is not proposed for evaluation in the EIR.

d) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element, and no change any policies or regulations is proposed related to emergency access. Development applications for projects facilitated by the Housing Element will be required to demonstrate conformance with applicable policies and standards to ensure adequate emergency access, such as Fire Department standards for sufficient maneuvering space for fire apparatus and emergency evacuation such as requirements for access walkways leading from fire apparatus access roads to exterior openings. Required compliance with such policies and standards would reduce potential impacts related to emergency access to a level that is less than significant.

# 18. TRIBAL CULTURAL RESOURCES

Would the adoption and/or implementation of the Housing Element 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:

	Environmental Issues	Potentially Significant Impact	Less Than Significant Impact	No Impact
a)	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), or		×	
b)	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.		⊠	

# Discussion:

a-b) Less than significant impact. The project area is a fully developed urbanized area. In order to determine if the project would cause a substantial adverse change to the significance of a tribal cultural resource the City conducted outreach to several tribes per the requirements of Assembly Bill (AB) 52 and Senate Bill (SB) 18. Staff sent letters to a total of nine tribes that requested consultation with the City through the AB 52 and SB 18 process. Staff requested a tribal consultation list from the Native American Heritage Commission (NAHC) per the requirements of AB 52 and was provided with a list of seven tribes with traditional lands or cultural places near the project site. On May 29, 2020, the City of Beverly Hills mailed letters to all tribal contacts. The City has not received any requests for consultation. Thus, at this point, there is no indication that the Project would have any impacts on tribal cultural resources, and any impacts will be less than significant. Future projects that are not exempt from CEQA will also undergo tribal consultation processes intended to identify and address any potential site specific impact issues.

# 19. UTILITIES AND SERVICE SYSTEMS

Wo	Would the adoption and/or implementation of the Housing Element and Safety Element:						
	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact		
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			⊠			
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X			
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?			⊠			
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?			×			
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			☒			

#### Discussion:

- a) Less than significant. The draft Housing Element would not authorize any specific development project and does not propose any changes to land use plans or regulations that would increase future development beyond the level currently anticipated in the regional Growth Forecast and infrastructure plans. Therefore, adoption of the Housing Element would have no effect on the future need for water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant.
- b) Less than significant. In 2020, the City purchased 100% of its water from the Metropolitan Water District (MWD) due to the fact that the City's Foothill Water Treatment Plant was offline for rehabilitation. The City of Beverly Hills 2020 Urban Water Management Plan (UWMP) provides a framework for long-term water planning for the City's water service area, which is approximately 6.35 square miles. This plan states that due to water conservation measures, water use has decreased from 10,367 Acre Feet per Year in 2010 to 9,273 in 2020. At the same time, the population in the water service area increased, which indicates a decrease in per-capita water use in the water service area. Notably, the City's water utility has been actively expanding its capacity to extract and treat groundwater for use including a rehabilitation of the Foothill Water Treatment Plant, which is currently underway and is expected to treat approximately 3 million gallons per day of local groundwater and provide approximately 25% of the City's annual water demand8. Further,

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<sup>&</sup>lt;sup>8</sup> www.beverlyhills.org/uwmp

the City has recently completed construction of a new well in the City of Los Angeles near the City of Beverly Hills.

This UWMP uses SCAG projected population and employment for the region to calculate future supply needs. The UWMP contemplates a growth of 2,908 residents in the service area between 2020 and 2045 (note, the service area includes portions of the City of West Hollywood). The UWMP contemplates the addition of approximately 313 housing units by the year 2030, which is roughly in line with the expected unit increase in the City according to the regional Growth Forecast. Further, the UWMP illustrates the actual demands for potable water of various uses and shows that multi- family dwellings (as contemplated by the Housing Element) require less than half the water that single-family dwellings use on an annual basis (Table 4-1E, 2020 UWMP). The UWMP outlines a number of measures that contribute to the reduction in per capita water use in the City including Advanced Meter Infrastructure that alerts staff about various water issues such as continuous water flows ad excessive irrigation, a customer portal to help customers manage their water use and consistent outreach and education about water usage and conservation measures. These efforts will continue into the future. In addition, the UWMP notes that the building codes and landscaping ordinances for new residential uses will continue to increase water efficiency over time. The draft Housing Element is consistent with the regional Growth Forecast, which is the basis for estimating reasonably foreseeable development and water needs. Given these facts, future housing development facilitated by the Housing Element would have a less than significant impact on water supplies.

- c) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element. However, future developments facilitated by the Housing Element would generate wastewater and demand for wastewater treatment. The Beverly Hills Department of Public Works maintains the sewer collection and distribution system throughout the City, and wastewater generated in the City is collected and treated at Los Angeles Hyperion Wastewater Treatment Plant located near LAX in Los Angeles. The Hyperion Wastewater Treatment Plant treats an average of 275 million gallons of waste per day, which is 175 million gallons per day lower than its capacity of 450 million gallons per day (LA Sanitation, Water Reclamation Plants, 2020). Long-term plans for wastewater treatment capacity are based upon the regional growth forecast, and future development facilitated by the Housing Element would be consistent with the growth forecast; therefore, development would not exceed projected demand for wastewater treatment. Impact would be less than significant.
- d) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element. However, future developments facilitated by the Housing Element would generate solid waste and demand for solid waste disposal facilities. Solid waste collection in the City is managed by the City of Beverly Hills Public Works Department, which contracts with Recology Los Angeles. Solid waste from the City is sent to one of three landfills: Chiquita Canyon Landfill, Sunshine Canyon Landfill, and the Calabasas Sanitary Landfill. The existing capacity of the three landfills, are permitted to receive 21,600 tons of waste per day (LA County Solid Waste Information Website). Development facilitated by the Housing Element would occur over many years and is expected to be consistent with the regional growth forecast. Future developments would be required to comply with regulations regarding solid waste, recycling and landfill diversion. Because the Housing Element is consistent with the regional growth forecast, and all future developments facilitated by the Housing Element must comply with regulations to reduce the generation of solid waste, impacts would be less than significant.
- e) <u>Less than significant</u>. The City of Beverly Hills achieves the State requirement to divert at least 50% of solid waste from landfills. Over the past decade, the City has achieved a 78% diversion rate (City of Beverly Hills Website, 2017). No specific development project is proposed at this time in connection with adoption of the Housing Element; however, future developments facilitated by the Housing Element would generate solid waste. Those future developments would be required to comply with existing regulations regarding solid waste, recycling and landfill diversion, which would reduce impacts to a level that is less than significant.

# 20. WILDFIRE

very	ated in or near state responsibility areas or lands classified as high fire hazard severity zones, would the Housing Element or its implementation:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?			$\boxtimes$	
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?			×	
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?			×	
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?			×	

# Discussion:

- a) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element, and a majority of future developments facilitated by the Housing Element would not be located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The only housing units that would be added in these zones would be ADUs, however, the development of ADUs in this area would not impact evacuation or response plans in the very high fire hazard severity zones. Future housing developments facilitated by the Housing Element would be located primarily in the Mixed Use Overlay Zone, which is not within or near a very high fire hazard severity zones (Attachment 6). Therefore, impacts would be less than significant.
- b) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element, and the majority of future developments facilitated by the Housing Element would not be located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The only housing units that would be added in these zones would be ADUs, however, the development of ADUs in this area would not exacerbate wildfire risks in the very high fire hazard severity zones. Future housing developments facilitated by the Housing Element would be located primarily in the Mixed Use Overlay Zone, which is not within or near a very high fire hazard severity zones (Attachment 6). Therefore, impacts would be less than significant.
- c) Less than significant. No specific development project is proposed at this time in connection with adoption of the Housing Element, and the majority of future developments facilitated by the Housing Element would not be located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The only housing units that would be added in these zones would be ADUs, however, the development of ADUs in this area would not require the installation or maintenance of associated infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Future housing developments facilitated by the Housing Element would be located primarily in the Mixed Use Overlay Zone, which is not within or near a very high fire hazard severity zones (Attachment 6). Therefore, installation or

- maintenance of roads, fuel breaks or other infrastructure that would exacerbate risks is not envisioned and impacts would be less than significant.
- d) <u>Less than significant</u>. No specific development project is proposed at this time in connection with adoption of the Housing Element, and a majority of future developments facilitated by the Housing Element would not be located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The only housing units that would be added in these zones would be ADUs, however, the development of ADUs in this area would not expose people or structures to significant risk related to downslope or downstream flooding or landslides. Future housing developments facilitated by the Housing Element would be located primarily in the Mixed Use Overlay Zone, which is not within or near a very high fire hazard severity zones (Attachment 6). Therefore, impacts would be less than significant.

# 21. MANDATORY FINDINGS OF SIGNIFICANCE

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			×	
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			×	
c)	Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			×	

a-c) Less than significant impact. As described throughout this document, the City of Beverly Hills Housing Element is a policy document and no specific development projects are proposed in connection with the approval of the Housing Element. As outlined, a majority of the housing projects that are expected to result from the implementation of the Housing Element are anticipated to be developed in the Mixed Use Overlay Zone. This zone has already been adopted by the City and is currently in place, so any other changes in housing in the city that result from the Housing Element will not result in cumulative impacts. Nonetheless, as individual housing projects are proposed, any that are not exempt from CEQA review would undergo cumulative analysis taking into consideration the any other nearby developments that would be occurring in a similar timeframe.

The adoption of the Housing Element to facilitate housing would not result in impacts, either limited or cumulative affecting the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, As illustrated in this document, the adoption and implementation of the Housing Element will not have environmental impacts that will substantially adversely impact human beings either directly or indirectly.

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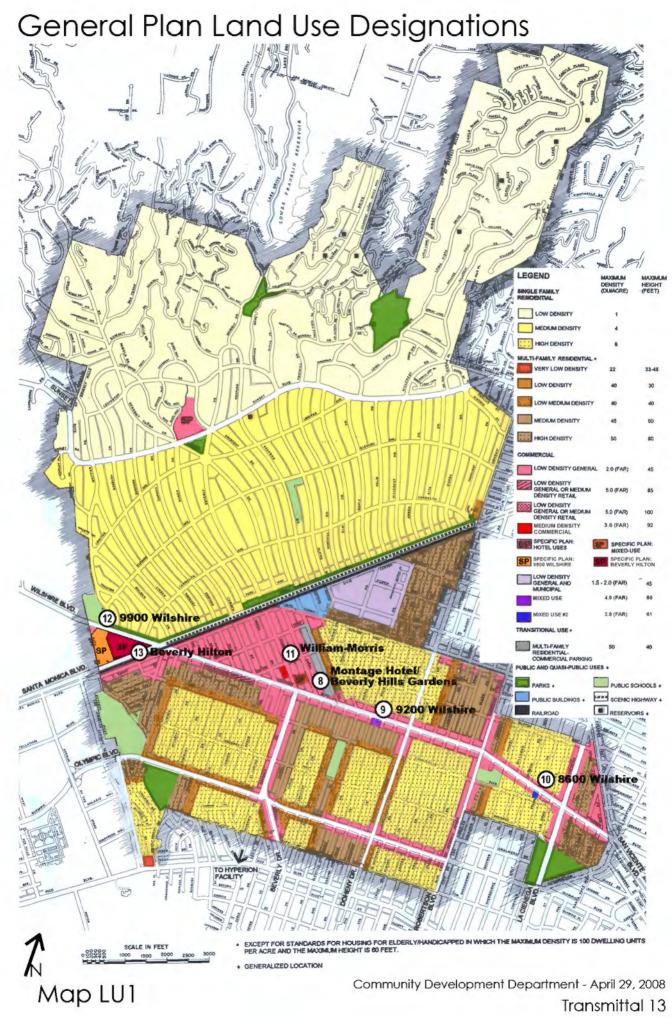
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# **ATTACHMENTS**

# **Attachment 1: General Plan Land Use Map**

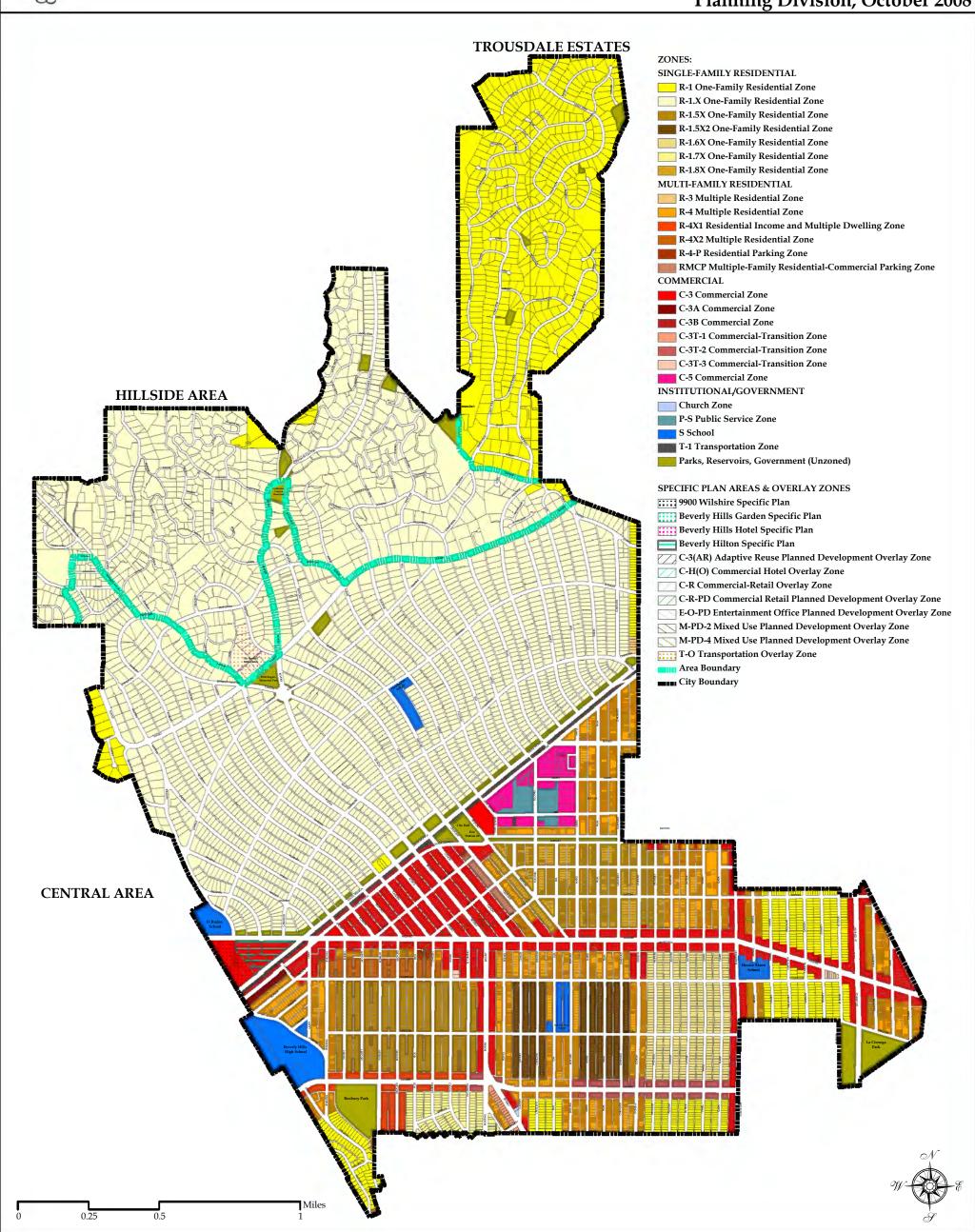


# **Attachment 2: Zoning Map**



# City of Beverly Hills Zoning Map

**Planning Division, October 2008** 



## **Attachment 3: Sensitive Species and Vegetation Communities**

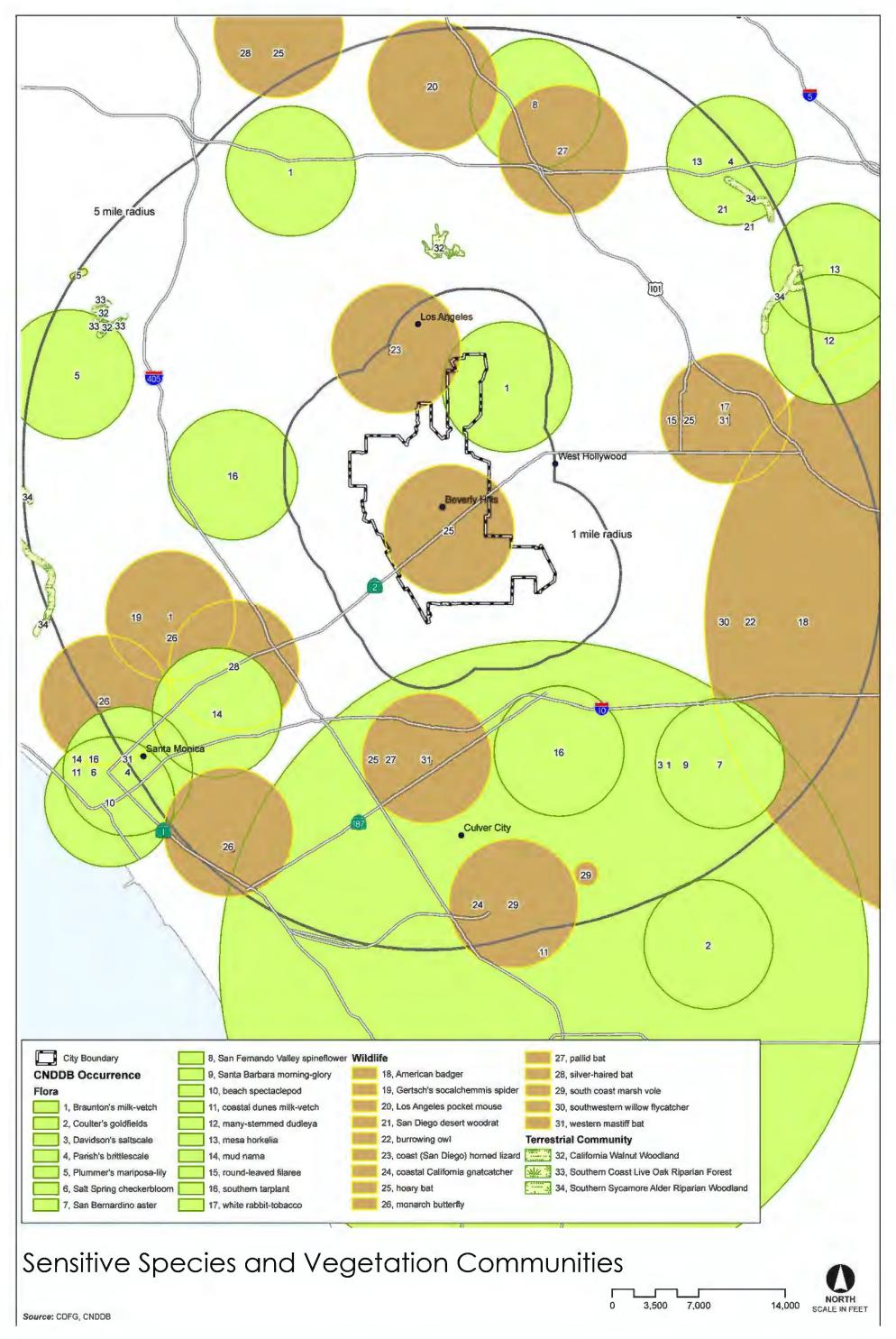


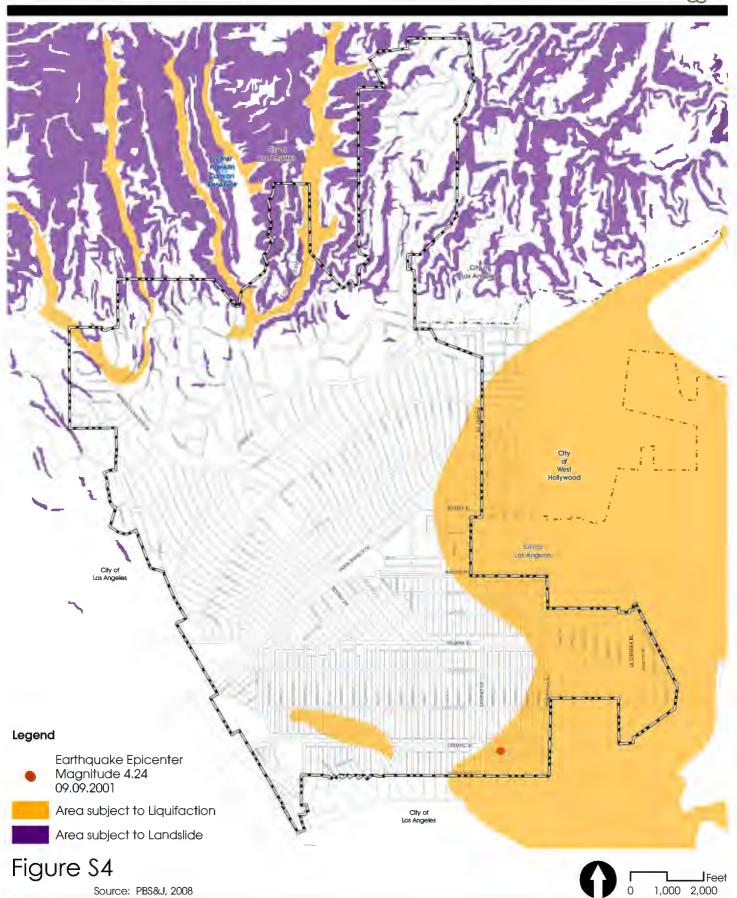
Figure OS2

## **Attachment 4: Geological Conditions**

# SEISMIC HAZARDS

# Beverly Hills General Plan

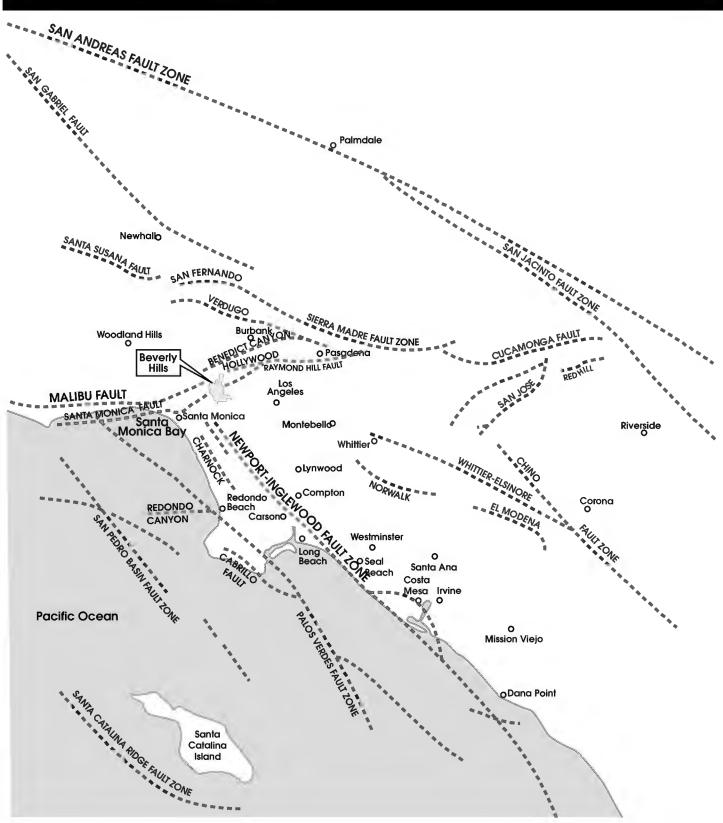




# **REGIONAL FAULT MAP**

# Beverly Hills General Plan

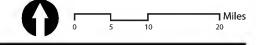




A10

Figure S3

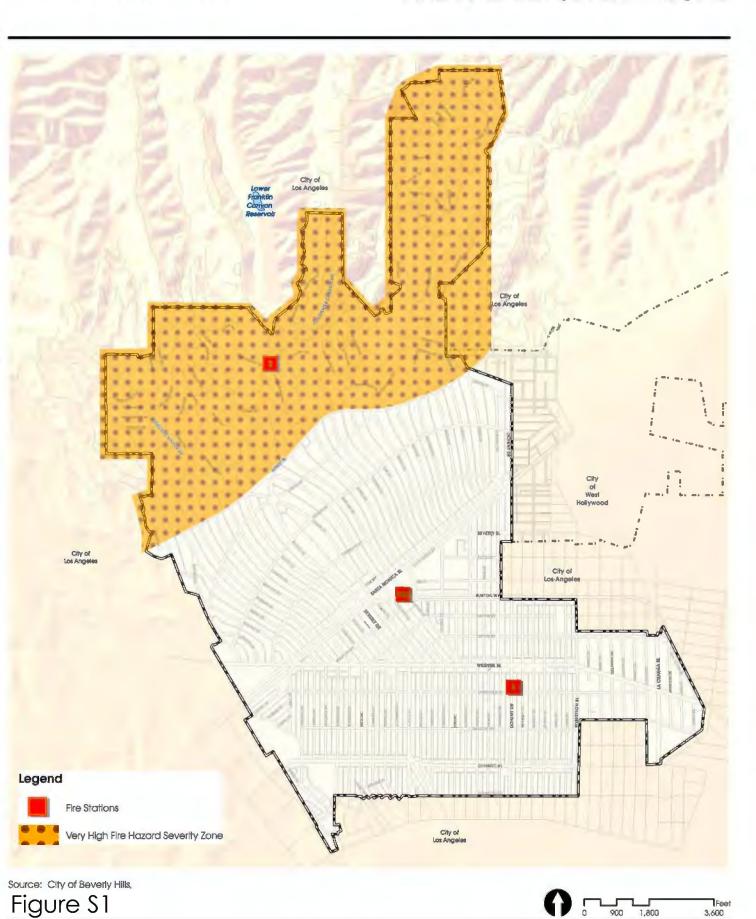
Source: CDMG OFR 93-03, 1993; USGS MFI-512, 1985



# Attachment 5: High Quality Transit Corridors and Transit Priority Areas



## **Attachment 6: Fire Hazard Severity Zones**



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Attachment 7: Air Q	uality and Greenhous	se Gas Emissions	Technical Study
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16755 Von Karman Avenue Suite 200 Irvine, CA 92606 949.753.7001 phone 949.753.7002 fax

# technical memorandum

date September 2, 2021

to Chloe Chen, Associate Planner

City of Beverly Hills

from Tamseel Mir, ESA

Olivia Chan, ESA Heather Dubois, ESA

subject City of Beverly Hills Housing Element Update Air Quality and Greenhouse Gas Emissions

Analysis

#### Introduction

The City's current Housing Element of the General Plan was approved in 2013 and outlines the City's housing goals from 2014 through 2021. The State of California requires that each jurisdiction's housing element be updated every eight (8) years and certified by the State. The City is currently updating its Housing Element for the 2021-2029 period. A major component of this update is the 6th Cycle Regional Housing Needs Assessment (RHNA), in which the State estimates each region's housing needs for all income groups.

ESA conducted an Air Quality and Greenhouse Gas Emissions analysis to disclose (for informational purposes only) the potential emissions associated with buildout of the proposed 2021-2029 Housing Element Update in comparison to existing conditions as well as buildout of the existing Housing Element. This memorandum summarizes ESA's analysis and findings.

## **Project Description**

The City is currently updating its Housing Element for the 2021-2029 period. The purpose of the Housing Element is to identify and analyze potential sites for residential development and to establish housing programs to accommodate the City's share of future housing needs for all income groups as identified through the RHNA process. Based on the City's draft General Plan 2021-2029 Housing Element, the City's residential sites inventory is comprised of three components: 1) approved projects; 2) underutilized (non-vacant) sites with potential for additional residential development or redevelopment; and 3) potential accessory dwelling units (ADUs). Potential sites for residential development during the 2021-2029 planning period include 490 units through approved projects, 8,686 units through underutilized sites, and 72 potential accessory dwelling units (ADUs), for a total of

<sup>1</sup> City of Beverly Hills. 2014-2021 Housing Element. Available: https://www.beverlyhills.org/cbhfiles/storage/files/6501624671112595597/BHHousingElementwmaps.pdf. Accessed August 2021

9,248 units. Excluding the approved projects, the proposed 2021-2029 Housing Element has the potential to provide a total of 8,758 residential units.

Underutilized sites have potential for additional residential development or redevelopment. The most significant opportunities for additional housing development are within the Mixed Use (MU) Overlay Zone. In 2020, the City adopted a Mixed Use Overlay Zone that encompasses over 109 acres. The overlay zone adds mixed use developments as a permitted use within the designated areas. Maximum residential density within the overlay zone is 79 units per acre and height limits range from three to five stories depending on location. Parcel-level data for the MU Overlay area shows that the MU Overlay Zone could accommodate more than 8,600 new housing units. This total does not include density bonus units that would be allowed when affordable units are provided.

### **Existing Conditions**

#### 2014-2021 Housing Element

Based on the City of Beverly Hills General Plan 2014-2021 Housing Element, the realistic unit potential for the current adopted Housing Element, (assuming 85% of Zoning Density) is 725 units.

#### Mixed Use Overlay Zone

The City Council recently adopted a Mixed Use Overlay Zone (see Ordinance No. 20-O-2825) to allow housing units in some commercial areas of the City. The Mixed Use Overlay Zone regulations may be found in Article 18.3 of Chapter 3, Title 10 of the Beverly Hills Municipal Code (BHMC).

Mixed use projects are developments with both commercial uses and residential units. They are now allowed in the Mixed Use Overlay Zone, which has been applied to the following commercial areas of the City:

- Properties fronting on Wilshire Boulevard between San Vicente Boulevard to the east and Rexford Drive to the west;
- Properties located on the southern side of Wilshire Boulevard between Rexford Drive to the east and South Santa Monica Boulevard to the west;
- Properties fronting on La Cienega Boulevard between the northern and southern borders of the City;
- Properties fronting Robertson Boulevard between the northern and southern borders of the City;
- Properties fronting on Olympic Boulevard located between the eastern boundary of the City and Rexford Drive to the west;
- Properties fronting on South Doheny Drive between Wilshire Boulevard and La Cienega Boulevard;
- Properties fronting on Santa Monica Boulevard (south roadway) between Wilshire Boulevard to the east and South Moreno Drive to the west; and
- Properties fronting on South Beverly Drive between Wilshire Boulevard to the north and Charleville Boulevard to the south.

Height limits in the Mixed Use Overlay Zone range from 3 to 5 stories. The following summarizes the Use and Floor Area Standards in Mixed Use Projects:

Commercial Uses: Commercial development on any parcel is limited by a 2:1 Floor Area Ratio (FAR). This means two times the square footage of the site may be commercial floor area (if a parcel is 10,000 square feet, then 20,000 square feet of commercial floor area is allowed). Please note that this limitation only applies to the commercial component of a mixed use development, and additional floor area may be included if dedicated to residential uses.

Restricted Uses: Medical and entertainment uses are not allowed in mixed use developments. Medical uses are defined in BHMC §10- 3-100. Entertainment uses include things like cabarets and nightclubs.

**Residential Uses:** One residential unit may be constructed on a site for each 550 square feet of site area, and the number of units can be rounded up at 0.76. For example, if a site is 10,000 square feet, then 18 residential units are allowed on the site (10,000/550 = 18.18), which rounds down to 18). There is no maximum floor area ratio (FAR) restriction for residential uses in a mixed use development.

Location Restrictions: The ground floor of a mixed use development must contain commercial uses in those areas directly adjacent to the public street(s). Residential uses shall not be permitted within the first 40 feet of depth from any street-facing property line of the ground floor.

### **Project Impacts**

#### Thresholds of Significance

A project would have a significant impact with respect to air quality if the project would:

**Threshold AQ-1:** Conflict with or obstruct implementation of the applicable air quality plan;

Threshold AQ-2: 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;

**Threshold AQ-3:** Expose sensitive receptors to substantial pollutant concentrations; or

Threshold AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a

substantial number of people.

A project would have a significant impact with respect to GHG emissions if the project would:

**Threshold GHG-1:** Generate GHG emissions, either directly or indirectly, that may have a significant

impact on the environment; or

Threshold GHG-2: Conflict with any applicable plan, policy or regulation adopted for the purpose of

reducing the emissions of GHGs.

#### Methodology

The purpose of the Housing Element is to identify and analyze potential sites for residential development and to establish housing programs to accommodate the City's share of future housing needs for all income groups as identified through the RHNA process. Implementation of the proposed Housing Element would not directly result in the physical development of residential units. It is anticipated that each project developed under the Proposed Housing Element would be required to be analyzed separately through the applicable CEQA process. There are no currently approved projects under the Proposed Housing Element and therefore the analysis does not evaluate specific projects that could be developed under it, nor specific locations where the future projects would be located. Therefore, analyzing the localized impacts and other issue areas that rely on project specific data and the application of project specific mitigation would be speculative. Therefore, analysis with respect to consistency with the AQMP, localized impacts, impacts to sensitive receptors, and consistency with GHG plans and policies for reducing emissions would be addressed qualitatively due to the unique nature of the individual projects with

respect to project design, location to nearby receptors, and the inclusion of stationary emission sources (i.e. generators).

As described above, the most significant opportunities for additional housing development are within the Mixed Use (MU) Overlay Zone. Although existing commercial square footage could potentially be replaced with residential and/or mixed-use development, for purposes of this analysis, it is assumed that the total existing commercial square footage within the Mixed Use Overlay Zone would not vary significantly with Housing Element buildout. Therefore, regional operational emissions associated with the buildout of the Housing Element would be net-new. Total regional operational emissions have been included in this memorandum for informational purposes only as all future development would be subject to project-specific CEQA review.

In addition, this memorandum compares, for informational purposes only, the emissions from the 2021 - 2029 Housing Element to the emissions from the 2014 - 2021 Housing Element (2014-2021 Housing Element). Therefore, only the regional emissions for air quality and the GHG emissions (i.e. daily or annual emissions from total number of dwelling units regardless of location) are quantified.

Buildout of the 2014-2021 Housing Element and Proposed Housing Element would generate criteria pollutant emissions primarily through vehicle trips. In addition, emissions would result from area sources on site such as natural gas combustion, landscaping equipment, and use of consumer products. The analysis assumes that there are no stationary sources (i.e. generators) associated with the operation of these residential units to be developed. The 2014-2021 Housing Element impacts were assessed for full buildout in 2021.

CalEEMod (version 2020.4.0) was used to estimate pollutant emissions from both the 2014-2021 Housing Element and the Proposed Housing Element. Both housing element scenarios were analyzed only for the residential units anticipated to be developed under each scenario and residential units were modeled as mid-rise apartments. Changes made to the default CalEEMod settings mid-rise apartments are as follows:

- Area Sources: wood stoves and wood fireplaces were removed in accordance with SCAQMD
  requirements. Fireplace usage was re-allocated based on the existing percentages for natural gas and no
  fireplaces.
- 2. Energy Use: As detailed in Attachment A, a portion of the 2014-2021 Housing Element was assumed to be constructed relying on 2016 Title 24 requirements.<sup>2</sup> The remaining 2014-2021 Housing Element units and all of the Proposed Housing Element development was assumed to be constructed in accordance with the 2019 Title 24 requirements.<sup>3</sup>
- 3. Vehicle trips were assumed at a rate of 5.44 trips per dwelling unit per day. The Institute of Transportation Engineers (ITE) 10<sup>th</sup> Edition ITE trip generation rate for market rate mid-rise residential buildings (Category 221) is 5.44 trips per day per dwelling unit.<sup>4</sup> Based on this trip rate, the potential

<sup>2</sup> California Code of Regulations (CCR) Title 24, California Building Code (CBC). Title 24, Part 2, Chapter 12. January 1, 2017.

<sup>3</sup> California Code of Regulations (CCR) Title 24, California Building Code (CBC). Title 24, Part 2, Chapter 12. January 1, 2020.

The Institute of Transportation Engineers (ITE), ITE Trip Generate Rate, 10th Edition.

8,686 units associated with the proposed Housing Element Update would generate a total of approximately 47,252 daily trips. The 72 potential accessory dwelling units would generate a total of approximately 392 daily trips. Thus, the potential 8,758 residential units that could be developed under the draft 2021-2029 Housing Element would generate a total of approximately 47,644 daily trips.

#### Threshold AQ-1

The Proposed Housing Element is located within the 6,745-square-mile South Coast Air Basin (Air Basin). Air quality planning for the Air Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Proposed Housing Element would be subject to the SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). As part of the analysis for this checklist question, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the air quality plan is based.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in direct conflicts with the AQMP.

#### Construction

Buildout of the Proposed Housing Element could result in the construction of 8,758 new dwelling units. However, this construction would not occur all as one project, nor would it occur at the same site. As there are no specific projects proposed that are directly associated with the Housing Element and there is no knowledge as to these potential projects' individual sizes, locations, or timing of construction, analysis of construction emissions would be speculative at best. Each future project developed under the Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project's specifics. Regardless, during its construction these projects would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment, and with SCAQMD's regulations for controlling fugitive dust and other construction emissions. Compliance with these measures and requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities.

Future individual projects would generate short-term construction jobs, but would not necessarily create new construction jobs, since construction workers typically travel amongst construction sites as individual projects are completed within a particular area and are not typically brought from other areas to work on developments. Moreover, these jobs would be temporary in nature. Therefore, construction jobs under future individual projects supporting implementation of the Proposed Housing Element would not conflict with the long-term employment projections upon which the AQMP are based.

#### Operation

Future individual projects developed under the Proposed Housing Element would generate growth associated with the new residences. There are no specific projects currently approved or proposed under the Proposed

Housing Element and there is no knowledge as to timing of construction, potential location or the exact nature of future projects. However, the potential increases in residential land use within the Mixed Use Overlay Zone in an effort to plan for growth to achieve the City's RHNA allocation would result in a diversity and mix of uses, reducing vehicle trips and vehicle miles traveled (VMT) by encouraging walking and non-automotive forms of transportation such as the existing bus routes. In addition, the Los Angeles Metro Purple (D) Line Extension would serve the Mixed Use Overlay Zone and include stops at Wilshire/La Cienega and Wilshire/Rodeo, increasing access to transit in the area. This would result in corresponding reductions in transportation-related emissions. This would result in corresponding reductions in transportation-related emissions. As part of SCAG's 2020–2045 RTP/SCS, a reduction in VMT within the region is a key component to achieving the 2035 GHG emission reduction targets established by the California Air Resources Board (CARB). Nevertheless, each project developed under the Housing Element would be anticipated to conduct their own CEQA analysis and would determine significance based on specific individual projects.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in growth that was not accounted for within the City and the Proposed Housing Element would not conflict with or obstruct implementation of the AQMP. Impacts would be less than significant.

#### Threshold AQ-2

As indicated above, the City is located within the Air Basin, which is characterized by relatively poor air quality. State and federal air quality standards are often exceeded in many parts of the Air Basin, including those monitoring stations nearest to the City. The Proposed Housing Element would contribute to local and regional air pollutant emissions during construction (short-term or temporary) and operations (long-term).

Implementation of the Proposed Housing Element would not directly result in the construction or operation of any development project. The Proposed Housing Element provides the structure under which the City would implement housing to satisfy RHNA requirements. Therefore, the Proposed Housing Element would not result in direct emissions of criteria pollutants. However, the analysis identifies the emissions anticipated from buildout of the current 2014-2021 Housing Element and buildout of the Proposed Housing Element for comparison and informational purposes only, as discussed in detail below.

#### Construction

Construction has the potential to create regional air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trips traveling to and from the Project Site. In addition, fugitive dust emissions would result from construction activities. During the finishing phase, the application of architectural coatings (i.e., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. However, as there are no specific projects currently approved or proposed under the Proposed Housing Element and there is no knowledge as to timing of construction, location or the exact nature of future projects, analysis of construction emissions would be speculative at best. Each future project developed under the Housing Element would be required to comply with SCAQMD rules and regulations as well as conduct their own applicable CEQA analysis and would determine significance based on the individual projects specifics.

#### Operation

The SCAQMD has separate significance thresholds to evaluate potential impacts associated with the incremental increase in criteria air pollutants associated with long-term Project operations. Based on criteria set forth in the SCAQMD CEQA Air Quality Handbook, a project would have the potential to violate an air quality standard or contribute substantially to an existing violation and result in a significant impact with regard to operational emissions if regional emissions from both direct and indirect sources from a project would exceed any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOCs, (2) 55 pounds per day for NO<sub>X</sub>, (3) 550 pounds per day for CO, (4) 150 pounds per day for SO<sub>X</sub>, (5) 150 pounds per day for PM10, and (6) 55 pounds per day PM2.5. Regional air pollutant emissions associated with the operation of the individual projects under the Proposed Housing Element would be generated by the consumption of electricity and natural gas, and by the operation of on-road vehicles. Pollutant emissions associated with energy demand (i.e., electricity generation and natural gas consumption) are classified by the SCAQMD as regional stationary source emissions.

Operational criteria pollutant emissions were calculated for mobile, area, and stationary sources for the total number of housing units projected for the Proposed 2021-2029 Housing Element and do not take into account any potential emissions reductions that could be incorporated at the individual project level. Buildout year was assumed to be 2029. Results of the criteria pollutant calculations are presented in Table 1, Maximum 2021-2029 Housing Element Buildout Regional Operational Emissions. The SCAQMD's regional thresholds are intended to guide project development and not program level documents and would be applied to each individual project as it is analyzed under CEQA. Therefore, emissions are presented for informational purposes only and not for determination of impacts.

Table 1
Maximum 2021-2029 Housing Element Buildout Regional Operational Emissions (pounds per day)<sup>a</sup>

Source	VOC	$NO_X$	CO	$SO_2$	$PM_{10}$	PM <sub>2.5</sub>
Proposed 2021-2029 Housing Element						
Area	225	138	777	1	15	15
Energy	2	20	8	<1	2	2
Mobile	137	131	1,399	3	388	105
Total	364	289	2,185	4	404	121

<sup>&</sup>lt;sup>a</sup> Totals may not add up exactly due to rounding in the modeling calculations.

Source: ESA, 2021.

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the federal Clean Air Act (CAA) and California Clean Air Act. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or California non-attainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in non-attainment for ozone, NO<sub>2</sub>, PM10, and PM2.5, cumulative projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated

under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the CEQA Guidelines provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that would avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. For individual projects analyzed under the Proposed Housing Element, an approved plan would be the AQMP. SCAQMD does not recommend relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD also recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed previously, the individual projects that could be developed would be subject to CEQA analysis to determine the significance of impacts. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in construction or operational emissions of criteria pollutants for which the region is in non-attainment under the applicable air quality standards. As the Proposed Housing Element would not result in direct construction or operational emissions, the Proposed Housing Element would not result in a cumulatively considerable net increase. Impacts would be less than significant.

#### Threshold AQ-3

Implementation of the Proposed Housing Element would not include the construction or operation of projects that may be developed within the City and simply provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in direct emissions of criteria pollutants that could impact localized receptors.

#### Construction

Construction of future individual projects under the Proposed Housing Element has the potential to create localized air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trips traveling to and from the project site. In addition, fugitive dust emissions would result from construction activities. During the finishing phase, the application of architectural coatings (i.e., paints) and other building materials would release VOCs. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

The SCAQMD provides guidance for conducting the analysis of localized emissions in their *Localized Significance Threshold Methodology* (June 2003, revised July 2008), which relies on on-site mass emission rate

screening tables and project-specific dispersion modeling typically for sites sized one, two, and five acres. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project area, and (3) the distance between the project area and the nearest sensitive receptor. The localized significance thresholds are applicable to NO<sub>X</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. For NO<sub>X</sub> and CO, the thresholds are based on the ambient air quality standards. Table 2, Localized Significance Thresholds, summarizes screening level localized thresholds for projects located within 25 meters of the nearest sensitive receptors for the Northwest Los Angeles County Coastal Area (Source Receptor Area 2), where the City of Beverly Hills is located. Should individual projects exceed screening level thresholds presented in Table 2, project-specific dispersion modeling would be required to demonstrate that no exceedance of the concentration-based thresholds (from which the screening tables are derived).

Table 2
SCAQMD Localized Significance Thresholds for Source Receptor Area 2

Site Size	NOx	CO	$PM_{10}$	PM <sub>2.5</sub>			
Construction (lbs/day)							
1 Acre	103	562	4	1			
2 Acre	147	827	6	1			
5 Acre	221	1,531	13	2			
	Operation	(lbs/day)					
1 Acre	103	562	1	1			
2 Acre	147	827	2	1			
5 Acre	221	1,531	3	2			
Source: SCAQMD, 20	800						

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

Sensitive receptors maybe located within close proximity to future projects under the Proposed Housing Element. SCAQMD recommends that construction health risk assessments be conducted for substantial sources of diesel particulate matter (DPM) emissions (e.g., projects with substantial construction activities, such as earth-moving construction activities, generating a pound per day or more of DPM for six months or longer) in proximity to sensitive receptors and has provided guidance for analyzing mobile source diesel emissions. Localized DPM emissions strongly correlate with localized PM2.5 emissions. However, localized analysis does not directly measure health risk impacts. Therefore, future projects under the Proposed Housing Element would potentially require project-specific dispersion modeling to evaluate potential health risk impacts associated with construction.

However, as there are no specific projects currently approved or proposed under the Proposed Housing Element and there is no knowledge as to timing of construction, location or the exact nature of future projects, analysis of construction emissions at the project level would be speculative at best. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project's specifics. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

#### Operation

Operation of future individual projects under the Proposed Housing Element has the potential to create localized air quality impacts primarily through vehicle trips. In addition, emissions would result from area sources on site such as natural gas combustion, landscaping equipment, and use of consumer products. Due to the nature of residential use, it is not anticipated that future residential projects under the Proposed Housing Element would result in significant localized criteria pollutant impacts or substantial emissions of TACs. However, emissions would vary based on the intensity of development. As there are no specific projects currently approved or proposed under the Proposed Housing Element and no knowledge as to timing of construction, potential location or the exact nature of future projects, analysis of operational emissions at the project level would be speculative at best. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual projects specifics. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

As detailed under the construction discussion above, the SCAQMD provides guidance for conducting the analysis of localized emissions which relies on screening criteria established for on-site mass emissions for one, two, and five acre sites. Table 2, Localized Significance Thresholds, summarizes screening level localized thresholds for projects located within 25 meters of the nearest sensitive receptors for the Northwest Los Angeles County Coastal Area (Source Receptor Area 2), where the City of Beverly Hills is located. Should individual projects exceed screening level thresholds presented in Table 2, project-specific dispersion modeling would be required to demonstrate that no exceedance of the concentration-based thresholds (from which the screening tables are derived).

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

Sensitive receptors maybe located within close proximity to future projects under the Proposed Housing Element. SCAQMD requires operational health risk assessments to be conducted only for facilities that include the following activities that have the potential to generate high levels of DPM, truck idling and movement (such as, but not limited to, truck stops, warehouse/distribution centers or transit centers); ship hoteling at ports; and train idling. <sup>5</sup> The residential development projects within the Proposed Housing Element would not include any of

<sup>&</sup>lt;sup>5</sup> South Coast Air Quality Management District, Mobile Source Toxics Analysis, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-sourcetoxics-analysis, accessed August 2021.

these uses and would not be a significant source of on-site TAC emissions. Therefore, operational HRAs are not anticipated with respect to individual analysis of the projects to be developed.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in the direct construction or operational emissions of criteria pollutants. As the Proposed Housing Element would not result in direct construction or operational emissions, the Proposed Housing Element would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

#### Threshold AQ-4

Implementation of the Proposed Housing Element would not include the construction or operation of projects that may be developed within the City and simply provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in direct emissions of odors affecting nearby populations.

#### Construction

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. According to the SCAQMD CEQA Air Quality Handbook, construction equipment is not a typical source of odors. SCAQMD Rule 1113 limits the amount of VOCs from architectural coatings and solvents. According to the SCAQMD CEQA Air Quality Handbook, construction equipment is not a typical source of odors. Odors from the combustion of diesel fuel would be minimized by complying with the CARB ATCM that limits diesel-fueled commercial vehicle idling to five minutes at any given location, which was adopted in 2004. Individual projects constructed under the Proposed Housing Element would be required to comply with SCAQMD Rule 402 (Nuisance), which prohibits the emissions of nuisance air contaminants or odorous compounds. Through adherence with mandatory compliance with SCAQMD Rules and State measures, construction activities and materials would not create objectionable odors. Construction of future projects in support of the Proposed Housing Element would not be expected to generate nuisance odors at nearby sensitive receptors.

#### Operation

According to the SCAQMD CEQA Air Quality Handbook, 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. Future individual projects developed under the Proposed Housing Element would be mixed use projects including residential components and would not involve elements related to these types of uses. The individual projects would include various trash receptacles associated with the proposed development. On-site trash receptacles would be required to be covered and properly maintained to prevent adverse odors. With proper housekeeping practices, trash receptacles would be maintained in a manner that promotes odor control, and no adverse odor impacts are anticipated from the operation of future individual projects to be developed under the Proposed Housing Element. However, as the specifics of future individual projects are unknown, the individual projects are anticipated to be analyzed through the CEQA Process prior to development.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new

housing developments. Therefore, the Proposed Housing Element would not result in the direct construction or operational emissions of criteria pollutants. As the Proposed Housing Element would not result in direct construction or operational emissions, the Proposed Housing Element would result in other emissions adversely affecting a substantial number of people. Impacts would be less than significant.

#### Threshold GHG-1

State regulated GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>). CO<sub>2</sub> is the most abundant GHG in the atmosphere. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified in equivalent mass of CO<sub>2</sub>, denoted as CO<sub>2</sub>e. Mass emissions are calculated by converting pollutant specific emissions to CO<sub>2</sub>e emissions by applying the proper global warming potential (GWP) value. These GWP ratios are available from the U.S. Environmental Protection Agency (USEPA) and are published in the California Climate Action Registry (CCAR) General Reporting Protocol. By applying the GWP ratios, Project related CO<sub>2</sub>e emissions can be tabulated in metric tons per year.

The City of Beverly Hills is in the process of developing a Climate Action and Adaptation Plan that would establish community-wide GHG emission reduction goals through the implementation of capital investment, policies and programs to reach carbon neutrality by 2045.6 The City also has a Sustainable City Plan which provides a list of potential programs on which the City can build a unified sustainable strategy and represents the aspirations of the community to become more sustainable. The City has not yet adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emission. When no guidance exists under CEQA, the lead agency may look to and assess general compliance with comparable regulatory schemes.<sup>8</sup> The Office of Planning and Research released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that "lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice,"9 and that while "climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment." Furthermore, the technical advisory states that "CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project."11

<sup>6</sup> Public Works Commission, 2021. Climate Action and Adaptation Plan Framework. January 14, 2021.

<sup>7</sup> City of Beverly Hills, 2009. Sustainable City Plan. February 17, 2009.

<sup>8</sup> See Protect Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal. App. 4th 1099, 1107 ["[A] lead agency's use of existing environmental standards in determining the significance of a project's environmental impacts is an effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other environmental program planning and resolution.""]. Lead agencies can, and often do, use regulatory agencies' performance standards. A project's compliance with these standards usually is presumed to provide an adequate level of protection for environmental resources. See, e.g., Cadiz Land Co. v. Rail Cycle (2000) 83 Cal.App.4th 74, 99 (upholding use of regulatory agency performance standard).

<sup>9</sup> Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, (2008).

<sup>10</sup> Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, (2008).

<sup>11</sup> Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, (2008).

Implementation of the Proposed Housing Element would not include the construction or operation of projects that may be developed within the City and simply provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in direct emissions of GHGs. However, the analysis identifies the emissions anticipated from buildout of the current 2014-2021 Housing Element and buildout of the Proposed Housing Element for comparison and informational purposes only, as discussed in detail below.

#### Construction

Construction has the potential to result in GHG emissions through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trips traveling to and from the individual project sites. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. However, as there are no specific projects directly associated with the Proposed Housing Element and there is no knowledge as to potential project sizes, locations, or timing of construction, analysis of construction emissions would be speculative at best. Each project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual projects specifics. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

#### Operation

The Proposed Housing Element identifies the potential for the development of 8,758 residences. The combined annual operations of these residences were quantified based on the existing regulatory requirements at the time of analysis assuming buildout by 2029 and does not account for potential project specific reduction measures or mitigation incorporated, or the amortized construction emissions from each individual project. A total of 71,308 metric tons of carbon dioxide equivalents (MT CO<sub>2</sub>e) annually are anticipated at buildout as shown in Table 3.

The potential increases in residential land use within the Mixed Use Overlay Zone in an effort to plan for growth to achieve the City's RHNA allocation would result in a diversity and mix of uses, reducing vehicle trips and vehicle miles traveled (VMT) by encouraging walking and non-automotive forms of transportation. This would result in corresponding reductions in transportation-related emissions. Nevertheless, each future project developed under the proposed Housing Element would be anticipated to conduct their own CEQA analysis and would determine significance based on the individual projects specifics. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

Table 3
Annual Greenhouse Gas Emissions

CO <sub>2</sub> e	(Metric	Tons	per	Year)	a
-------------------	---------	------	-----	-------	---

Project
_
2,044
9,120
55,978
2,026
2,141
71,308

<sup>&</sup>lt;sup>a</sup> Totals may not add up exactly due to rounding in the modeling calculations.

Source: ESA, 2021.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Therefore, the Proposed Housing Element would not result in the direct construction or operational emissions of GHGs. As the Proposed Housing Element would not result in direct construction or operational emissions, the Proposed Housing Element would not generate GHG emissions either directly or indirectly that may have a significant impact on the environment. Impacts would be less than significant.

#### Threshold GHG-2

Implementation of the Proposed Housing Element would not include the construction or operation of projects that may be developed within the City and simply provides the structure under which the City would incorporate the anticipated new housing developments.

Construction and operation of future individual projects developed under the Proposed Housing Element would generate GHG emissions associated with the new residences. However, as there are no specific projects currently approved or proposed under the Proposed Housing Element and there is no knowledge as to timing of construction, potential location or the exact nature of future projects, analyzing project compliance with the City's current Sustainable City Plan or other state and local plans for the reduction of GHG emissions would be speculative at best. It is anticipated that as the City's CAAP would be developed so that future projects within the City would be required to achieve the goals of the CAAP, thus resulting in a reduction of the GHG emissions identified under *Threshold GHG-1*, as the quantified GHG emissions analysis for total buildout does not include potential project specific reductions or mitigation.

The potential increase in residential units within the Mixed Use Overlay Zone could result in growth to achieve the City's RHNA allocation. However, the growth would be located in an area planned for a land use diversity and mix of land uses, which would minimize the growth in vehicle trips and vehicle miles traveled (VMT) by encouraging walking and non-automotive forms of transportation. In addition, the Los Angeles Metro Purple (D) Line Extension would serve the Mixed Use Overlay Zone and include stops at Wilshire/La Cienega and

Wilshire/Rodeo, increasing access to transit in the area. This would result in corresponding reductions in per capita transportation-related emissions. As part of SCAG's 2020–2045 RTP/SCS, a reduction in per capita VMT within the region is a key component to achieving the 2035 GHG emission reduction targets established by the California Air Resources Board (CARB). Nevertheless, each future project developed under the proposed Housing Element would be anticipated to conduct their own CEQA analysis and would determine significance based on the individual projects specifics. Through each project's individual environmental review process, emissions would be quantified and compared against project-specific thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

The Proposed Housing Element would not include the construction or operation of projects that may be developed within the City but provides the structure under which the City would incorporate the anticipated new housing developments. Projects developed under the Proposed Housing Element would be required to comply with all State and local requirements for reducing GHG emissions, including, but not limited to, Title 24 Part 11 and the City's CAAP when it is finalized and adopted. The Proposed Housing Element Therefore, the Proposed Housing Element would not result in the direct construction or operational emissions of GHGs. As the Proposed Housing Element would not result in direct construction or operational emissions, the Proposed Housing Element would not generate GHG emissions either directly or indirectly that may have a significant impact on the environment. Impacts would be less than significant.

### Plan-to-Plan Analysis

For informational purposes, the following analysis compares regional operational buildout emissions under the existing 2014-2021 Housing Element to buildout of the Draft 2021-2029 Housing Element Update. As is the case with the Proposed Housing Element, although existing development could potentially be replaced with new residential and/or mixed-use development, for purposes of this analysis, it is assumed that regional operational emissions associated with the buildout of the 2014-2021 Housing Element would be net-new for comparison purposes.

Operational criteria pollutant emissions were calculated for mobile, area, and stationary sources for the total number of housing units projected for the current 2014-2021 Housing Element and do not take into account any potential emissions reductions that could be incorporated at the individual project level. Buildout year was assumed to be 2021. Results of the criteria pollutant calculations are presented in Table 4, Maximum 2014-2021 Housing Element Buildout Regional Operational Emissions.

Table 4
Maximum 2014-2021 Housing Element Buildout Regional Operational Emissions (pounds per day)<sup>a</sup>

Source	VOC	NOx	CO	$SO_2$	$PM_{10}$	PM <sub>2.5</sub>
Existing 2014-2021 Housing Element						
Area	19	11	65	<1	1	1
Energy	<1	2	1	<1	<1	<1
Mobile	14	18	159	<1	32	9
Total	33	32	224	<1	34	10

Totals may not add up exactly due to rounding in the modeling calculations.

Source: ESA, 2021.

The 2014-2021 Housing Element identifies the potential for the development of 725 residences. The combined annual operations of these residences were quantified based on the existing regulatory requirements at the time of analysis assuming buildout by 2021 and does not account for potential project specific reduction measures or mitigation incorporated, or the amortized construction emissions from each individual project. A total of 7,079 MT CO<sub>2</sub>e annually are anticipated at buildout as shown in Table 5.

Table 5
Annual Greenhouse Gas Emissions – 2014-2021 Housing Element Buildout

	CO2e (Metric Tons per Year) a
Emissions Sources	Project
Existing 2014-2021 Housing Element	
Area (Landscaping Equipment)	169
Electricity and Natural Gas	964
Mobile Sources	5,531
Waste	168
Water	247
<b>Existing Subtotal</b>	7,079

<sup>&</sup>lt;sup>a</sup> Totals may not add up exactly due to rounding in the modeling calculations.

Source: ESA, 2021.

As shown, emissions associated with buildout of the 2014-2021 Housing Element would be lower than those expected with the buildout of the Proposed 2021-2029 Housing Element. This is an expected result as the Housing Element Update proposes substantially more housing units compared to the 2014-2021 Housing Element to achieve the 6th Cycle RHNA targets. Nonetheless, the growth is planned in a manner that would align with regional strategies to reduce per capita VMT and associated emissions.

#### Conclusion

Implementation of the Draft 2021-2029 Housing Element Update would result in more new residential units (8,758 units versus 725 units) than the buildout of current Housing Element. This in turn would result in more criteria pollutant emissions within the South Coast Air Basin.

Construction of the future residential units would potentially affect adjacent existing land uses. Compliance with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment, and with SCAQMD's regulations for controlling fugitive dust and other construction emissions would be required for both future projects implementing the current Housing Element Buildout and the proposed 2021-2029 Housing Element.

Implementation of both the current Housing Element and the proposed Housing Element Update would result in regional and localized emissions criteria pollutants within the South Coast Air Basin. Depending on the locations of future residential sites under implementation of both the current Housing Element and the proposed Housing

Element Update project, future residential units would potentially expose sensitive receptors to substantial pollutant concentrations.

The purpose of the Housing Element is to identify and analyze potential sites for residential development and to establish housing programs to accommodate the City's share of future housing needs for all income groups as identified through the RHNA process. Implementation of the proposed Housing Element would not directly result in the physical development of residential units. Each project developed under the Proposed Housing Element would be required to be analyzed separately through the appropriate CEQA process. Through each project's individual environmental review process, air quality and GHG emissions would be quantified and compared against project-specific thresholds. Mitigation would be implemented at the project-level if project-specific thresholds are exceeded. Therefore, all air quality and GHG impacts associated with the implementation of the Housing Element Update would be less than significant.

#### References

California Code of Regulations (CCR) Title 24, California Building Code (CBC). Title 24, Part 2, Chapter 12. January 1, 2017.

City of Beverly Hills General Plan 2014-2021 Housing Element, 2013.

City of Beverly Hills, Municipal Code, January 2010.

City of Beverly Hills Ordinance No. 20-O-2825, Mixed Use Overlay Zone, 2020.

City of Beverly Hills, 2009. Sustainable City Plan. February 17, 2009.

The Institute of Transportation Engineers (ITE), ITE Trip Generate Rate, 10<sup>th</sup> Edition.

Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, (2008).

Public Works Commission, 2021. Climate Action and Adaptation Plan Framework. January 14, 2021.

#### ATTACHMENT A

- 1. Assumptions
- 2. Emissions Summaries
  - a. Analysis Summary
  - b. 2014-2021 Housing Element CalEEMod Summary
  - c. 2021-2029 Housing Element CalEEMod Summary
- 3. CalEEmod Outputs
  - a. 2014-2021 Housing Element
  - b. 2021-2029 Housing Element

# Attachment A-1 Assumptions

# Beverly Hills Housing Element Update Operational & Existing Assumptions

CalEEMod Inputs (Non-Default information only)

CO2e

2021 2029

Project Location

(lbs CO2e/MWh) 483.26633 320.9239442

County Los Angeles

% Reduction 36% 32092.39%

Note: CH4 and N2O are set to 0 in CalEEMod as CO2 is set to represent CO2e values

Air District South Coast

Climate Zone

11

Existing Operational Year 2021 Existing HE

Operational Year PA2 2029 Proposed HE with MUO

Utility Provider Southern California Edison

Note: Construction is discussed qualitatively and therefore construction assumptions are not specifically called out as part of the

analysis.

Land Use	DUs	CalEEMod Category
Original HE	725	Apt. Mid-Rise
Proposed HE with MUO	8,758	Apt. Mid-Rise

#### **Trip Generation:**

#### **Original Analysis**

	Units	Trip Rate	Trips/day	<b>Traffic Categories</b>
Original HE	725	5.440	3,944	Apartment Mid-rise
Proposed HE with MUO	8,758	5.440	47,643.52	Apartment Mid-rise

#### **CalEEMod Modeling Parameters**

- 1 Daily Trip Rate is consistent for Monday through Sunday
- 2 Conservately sets all trips to Primary to avoid undercounting VMT as all residents would not be at the same location.
- 3 Default trip lengths used.
- 4 Default vehicle emission rates used.
- 5 Default fleet mix used
- 6 Default road dust used

#### **Area Source**

wood stoves Not allowed.

		Original	Prop	osed
fireplaces	default	Project	default	Project
wood	36.25	0	437.9	0
gas	616.25	648.68	7444.3	7836.11
none	72.5	76.32	875.8	921.89
	725	725	8758	8758

Note: Default number of units is used, but is adjusted to account for SCAQMD's ban on wood stoves and wood fireplaces in new development.

#### **Energy Use**

		T24 Electric		Light	ing	T24 Na	tural Gas
				Default		Default	
	<u>DU's</u>	<b>Default (2019)</b>	2016	(2019)	2016	(2019)	2016
Original HE							
-2016 T24	265	35.05	37.5035	741.44	741.44	4179.8	4472.386
-2019 T24	460	35.05	NA	741.44	NA	4179.8	NA
- Composit			35.95		741.44		4286.75
Proposed HE with MUO	8,758	35.05	NA	741.44	NA	4179.8	NA

CalEEMod currently uses 2019 Title 24 efficiency standards. The Original HE covers devemopment from 2014 to 2021. The 2019 Title 24 went into effect as of January 1 2020. The Original HE was approved with the 2016 Title 24 standards applicable. Because some of the residential units would have been constructed under the 2016 standards and some would have been approved under 2019 Title 24 standards, the analysis assumes the current 460 approved projects would adhere to the 2019 Title 24 standards and the remaining 265 units (725 - 460) projects would adhere to the 2016 Title 24 standards.

	<b>T24 Electricity</b>	Lighting	T24 NG
Residential 2019 reduction from 2016	7%	0%	7%
Non-Residential 2019 reduction from 2016	30%	0%	30%

#### Water Use

- 1 CalEEMod Default Water use was used for galons/year, electricity intensity factors, and anerobic digesters.
- <sup>2</sup> Treatment type for Septic Tank set to 0 and percentag atributed to aerobic and lagoons based on current percentages for both categories.

	Septic	Aerobic	Lagoons
Default	10.33	87.46	2.21
Adjusted	0.00	97.54	2.46

Solid Waste Generation CalEEMod Default solid waste generation was used

Operational - Off-Road Equipment None

Operational - Stationary Sources None

<u>Vegetation</u> None

## **Attachment A-2**

**Emissions Summaries - Analysis Summary** 

## Beverly Hills Housing Element Update Emissions Summaries

Air Quality Red	ional Emissions
-----------------	-----------------

7 III Quanty	g							
	ROG	NOx	СО	SO2	PM10 Total	PM2.5 Total		
Category			lb/d	ay				
	Original HE 2014 - 2021							
Area	19	11	65	0	1	1		
Energy	0	2	1	0	0	0		
Mobile	14	18	159	0	32	9		
Total	33	32	224	0	34	10		
	Proposed HE 2021 - 2029							
Area	225	138	777	1	15	15		
Energy	2	20	8	0	2	2		
Mobile	137	131	1,399	3	388	105		
Total	364	289	2,185	4	404	121		
	Net Emissions							
Area	207	127	713	1	13	13		
Energy	2	18	8	0	1	1		
Mobile	122	112	1,240	3	356	96		
Total	331	257	1,960	4	371	111		
	Thresholds							
Thresholds	55	55	550	150	150	55		

## **GHG Emissions**

Category	Original HE	Proposed HE	Net		
		MT/yr			
Area	169	2,044	1,875		
Energy	964	9,120	8,156		
Mobile	5,531	55,978	50,446		
Waste	168	2,026	1,858		
Water	247	2,141	1,894		
Total	7,079	71,308	64,229		

# Attachment A-2 Emissions Summaries -2014-2021 Housing Element CalEEMod Summary

# Beverly Hills Housing Element Update Air Quality Emissions - Original Housing Element 2014-2021

# Winter

7	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category					lb/e	day				
Area	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004
Energy	0.1953	1.669	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349
Mobile	14.144	19.803	153.7279	0.3198	31.9602	0.3269	32.2871	8.5132	0.3058	8.8189
Total	33.0126	32.9244	218.9605	0.4023	31.9602	1.6623	33.6225	8.5132	1.6411	10.1543

#### Summer

	_									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		-			lb/e	day				
Area	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004
Energy	0.1953	1.669	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349
Mobile	14.3628	18.4053	159.0232	0.3344	31.9602	0.3267	32.2869	8.5132	0.3056	8.8187
Total	33.2314	31.5268	224.2557	0.4168	31.9602	1.6621	33.6223	8.5132	1.6409	10.1541

#### Annual

7.7	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category		2			ton	s/yr				
Area	3.0894	0.221	7.5502	1.25E-03		0.0522	0.0522		0.0522	0.0522
Energy	0.0356	0.3046	0.1296	1.94E-03		0.0246	0.0246		0.0246	0.0246
Mobile	2.5335	3.6646	28.3099	0.0588	5.7033	0.0594	5.7628	1.5216	0.0556	1.5771
Waste						0	0		0	0
Water						0	0		0	0
Total	5.6585	4.1902	35.9897	0.062	5.7033	0.1362	5.8396	1.5216	0.1324	1.6539

# Beverly Hills Housing Element Update GHG Emissions - Original Housing Element 2014-2021

Winter						
ij	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			lb/d	day		
Area	0	13,844.45	13,844.45	0.3677	0.2518	13,928.69
Energy		2,130.66	2,130.66	0.0408	0.0391	2,143.32
Mobile		32,649.88	32,649.88	2.2518	1.4588	33,140.89
Total	0	48,624.99	48,624.99	2.6603	1.7497	49,212.91

Summer						
	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		_	lb/d	day		
Area	0	13,844.45	13,844.45	0.3677	0.2518	13,928.69
Energy		2,130.66	2,130.66	0.0408	0.0391	2,143.32
Mobile		34,129.24	34,129.24	2.1973	1.3946	34,599.78
Total	0	50,104.35	50,104.35	2.6058	1.6855	50,671.79

nnual						
	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			МТ	√yr		
Area	0	167.9852	167.9852	0.0148	2.86E-03	169.2067
Energy	0	961.6759	961.6759	6.76E-03	6.47E-03	963.7722
Mobile	0	5,449.83	5,449.83	0.3702	0.2427	5,531.41
Waste	67.6975	0	67.6975	4.0008	0	167.7177
Water	16.7124	207.3529	224.0653	0.4798	0.0363	246.8909
Total	84.4099	6,786.84	6,871.25	4.8724	0.2884	7,079.00

# Attachment A-2

**Emissions Summaries -2021-2029 Housing Element CalEEMod Summary** 

# Beverly Hills Housing Element Update Air Quality Emissions - Proposed Housing Element 2021-2029

# Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category					lb/e	day				
Area	225.3072	138.3022	777.1752	0.8679		14.515	14.515		14.515	14.515
Energy	2.3317	19.9252	8.4788	0.1272		1.611	1.611		1.611	1.611
Mobile	134.6263	140.7232	1,373.53	3.0861	386.2132	2.089	388.3022	102.8957	1.9419	104.8376
Total	362.2652	298.9506	2,159.18	4.0811	386.2132	18.215	404.4282	102.8957	18.0679	120.9635

# Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category					lb/	day				
Area	225.3072	138.3022	777.1752	0.8679		14.515	14.515		14.515	14.515
Energy	2.3317	19.9252	8.4788	0.1272		1.611	1.611		1.611	1.611
Mobile	136.8217	130.506	1,398.90	3.2201	386.2132	2.0883	388.3015	102.8957	1.9412	104.8369
Total	364.4606	288.7335	2,184.55	4.2152	386.2132	18.2143	404.4275	102.8957	18.0672	120.9629

# Annual

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category					ton	ıs/yr				
Area	37.2864	2.6642	90.9241	1.51E-02		0.632	0.632		0.632	0.632
Energy	0.4255	3.6364	1.5474	2.32E-02		0.294	0.294		0.294	0.294
Mobile	24.1517	25.9727	251.9436	0.5675	68.9208	0.3797	69.3004	18.3907	0.3529	18.7437
Waste						0	0		0	0
Water						0	0		0	0
Total	61.8636	32.2733	344.4151	0.6059	68.9208	1.3057	70.2265	18.3907	1.279	19.6697

# Beverly Hills Housing Element Update GHG Emissions - Proposed Housing Element 2021-2029

# Winter

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			lb/d	day		
Area	0	167,242.17	167,242.17	4.4264	3.0423	168,259.43
Energy		25,436.45	25,436.45	0.4875	0.4663	25,587.61
Mobile		330,999.57	330,999.57	21.8135	13.4217	335,544.57
Total	0	523,678.19	523,678.19	26.7274	16.9303	529,391.60

# Summer

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			lb/d	day		
Area	0	167,242.17	167,242.17	4.4264	3.0423	168,259.43
Energy		25,436.45	25,436.45	0.4875	0.4663	25,587.61
Mobile		345,438.35	345,438.35	21.3209	12.8967	349,814.60
Total	0	538,116.98	538,116.98	26.2348	16.4053	543,661.63

#### Annual

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			МТ	⁻/yr		
Area	0	2,029.27	2,029.27	0.1774	3.45E-02	2,043.99
Energy	0	9,094.81	9,094.81	8.07E-02	7.72E-02	9,119.84
Mobile	0	55,223.45	55,223.45	3.5858	2.2298	55,977.57
Waste	817.7856	0	817.7856	48.3298	0	2,026.03
Water	201.8859	1,663.35	1,865.24	5.796	0.439	2,140.97
Total	1,019.67	68,010.89	69,030.56	57.9696	2.7805	71,308.40

# Attachment A-3 CalEEMod Output -2014-2021 Housing Element CalEEMod Summary

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### Beverly Hills 2014 to 2021 HE

Los Angeles-South Coast County, Winter

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	725.00	Dwelling Unit	19.08	725,000.00	2074

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2021

**Utility Company** Southern California Edison

**CO2 Intensity** 483.27 **CH4 Intensity N2O Intensity** 0 (lb/MWhr) (lb/MWhr) (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

Woodstoves - Wood stoves and fireplaces are not allowed in SCAQMD's jurisdiction.

**Energy Use - See Assumptions** 

Water And Wastewater - See Assumptions

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value		
tblArchitecturalCoating	ConstArea_Residential_Exterior	489,375.00	0.00		
tblArchitecturalCoating	ConstArea_Residential_Interior	1,468,125.00	0.00		
tblConstructionPhase	NumDays	20.00	1.00		
tblConstructionPhase	PhaseEndDate	7/13/2021	6/16/2021		
tblEnergyUse	T24E	35.05	35.95		
tblEnergyUse	T24NG	4,179.80	4,286.75		
tblFireplaces	NumberGas	616.25	648.68		
tblFireplaces	NumberNoFireplace	72.50	76.32		
tblFireplaces	NumberWood	36.25	0.00		
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00		
tblProjectCharacteristics	CH4IntensityFactor	0.029	0		
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.27		
tblProjectCharacteristics	N2OIntensityFactor	0.006	0		
tblTripsAndVMT	WorkerTripNumber	104.00	0.00		
tblVehicleTrips	DV_TP	11.00	0.00		
tblVehicleTrips	PB_TP	3.00	0.00		
tblVehicleTrips	PR_TP	86.00	100.00		
tblVehicleTrips	ST_TR	4.91	5.44		
tblVehicleTrips	SU_TR	4.09	5.44		
tblWater	AerobicPercent	87.46	97.54		
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46		
tblWater	SepticTankPercent	10.33	0.00		
tblWoodstoves	NumberCatalytic	36.25	0.00		
tblWoodstoves	NumberNoncatalytic	36.25	0.00		
tblWoodstoves	WoodstoveDayYear	25.00	0.00		
tblWoodstoves	WoodstoveWoodMass	999.60	0.00		

# 2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.1 Overall Construction (Maximum Daily Emission) <u>Unmitigated Construction</u>

0000.0	0000.0	0000.0	0.000	0.000	0000.0	0000.0	0.000	0000.0	0.000	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	mumixsM
0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	2021
	, kep/ql									yet	)/qI					Деяг
COSe	NZO	CH¢	SOO listoT	NBio- COS	Bio- CO2	5.SM9 Tefal	Exhaust 7.2Mq	Fugitive 7.2Mq	O Mq Total	Exhaust PM10	Fugitive 01M9	70S	00	×ON	ВОВ	

# Mitigated Construction

0000.0	0000.0	0000.0	0000.0	0.000	0000.0	0000.0	0.000	0.000	0.000	0.000	0000.0	0000.0	0.000	0000.0	0000.0	mumixsM
0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	120Z
	Лер/qi						/ep/ql									
COSe	OZN	CH4	SOO lstoT	NBio- COS	Bio- CO2	6.SM9 IstoT	Exhaust 7.2Mq	Fugitive 7.2M9	O Mq Total	Exhaust PM10	eviitigu 01M9	70S	00	XON	ROG	

00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	Percent Reduction
COSe	NZO	CH¢	Total CO2	NBio-CO2	Bio- CO2	6.2Mq IstoT	Exhaust PM2.5	Fugitive PM2.5	OrMq IstoT	Exhaust PM10	Fugitive PM10	ZOS	00	XON	вов	

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.2 Overall Operational Unmitigated Operational

04.212,94 07	76 <del>4</del> 7.1	2.6603	48,624.99 7£	66.428,84 7£	0000.0	10.1543	1149.1	2£13.8	33.6225	£299.1	2096.15	6 <u>4</u> 023	2096.812	32.9244	33.0126	IstoT
98.041,88 98	1.4588	8132.2	88.649.28 91	88.949,28 91	1	9818.8 8	8305.0	ZE13.8	1782.28	6928.0	2096.18	8616.0	153.7279	19.8030	0441.41	əlidoM
2,143.320 2	1660.0	8040.0	838.081,2 7	839.081,2 7	]	6481.0	6481.0		6 <del>1</del> 81.0	6481.0		7010.0	2017.0	• 0699⁻l	£361.0	Energy
13,928.69 83	0.2518	7786.0	13,844.45 34	34.448,E1 34	0.000	1.2004	1.2004		1.2004	1.2004		8170.0	64.5223	11.4524	££73.81	Б91А
		Λe	sb/dl			бер/qі										Category
COSe	OZN	CH4	Total CO2	NBio- COS	Bio- CO2	8.2M9 IstoT	tsusdx3 6.2Mq	Fugitive 7.2M9	PM10 IstoT	Exhaust 01M9	Fugitive PM10	zos	oo	×ON	ВОВ	

# Mitigated Operational

49,212.90 70	7647.1	2.6603	48,624.99 75	48,624.99 7£	0000.0	10.1543	1149.1	8.5132	33.6225	1.6623	31.9602	0.4023	2096.812	32.9244	33.0126	Total
98.041,88 98	1.4588	2.2518	88.649,28 16	38.649,28 16		6818.8	8505.0	2613.8	1782.28	6928.0	2096.1E	8616.0	6727.631	19.8030	0441.41	əlidoM
2,143.320 2	1660.0	8040.0	829.0£1,2 7	2,130.658 7		6 <del>1</del> 81.0	6 <del>7</del> 81.0		6 <del>1</del> 81.0	6 <del>1</del> 81.0		7010.0	2017.0	0699∵≀	£361.0	Епегду
69.826,61 EE	8122.0	7798.0	24.448,61 46	54.448,61 34	0000.0	1.2004	1.2004		1.2004	1.2004		8170.0	64.5223	11.4524	££73.81	Бэ1А
	Vsb/dl						Л́ер/q									Category
					I	IstoT	8.2M9	Fugitive PM2.5	lstoT	01M9	Fugitive PM10					

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# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2021	6/16/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

# **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	ay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	·····	0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021

#### **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	ay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Mitigated	14.1440	19.8030	153.7279	0.3198	31.9602	0.3269	32.2871	8.5132	0.3058	8.8189		32,649.88 16	32,649.88 16	2.2518	1.4588	33,140.89 36
Unmitigated	14.1440	19.8030	153.7279	0.3198	31.9602	0.3269	32.2871	8.5132	0.3058	8.8189		32,649.88 16	32,649.88 16	2.2518	1.4588	33,140.89 36

# **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,944.00	3,944.00	3944.00	15,180,778	15,180,778
Total	3,944.00	3,944.00	3,944.00	15,180,778	15,180,778

#### 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
NaturalGas Unmitigated	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

# **5.2 Energy by Land Use - NaturalGas**

#### **Unmitigated**

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Apartments Mid Rise	18110.6	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
Total		0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **5.2 Energy by Land Use - NaturalGas**

# **Mitigated**

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/d	day		
Apartments Mid Rise	18.1106	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
Total		0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

# 6.0 Area Detail

# **6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Mitigated	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33
Unmitigated	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	ay		
Architectural Coating	1.2429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3550					0.0000	0.0000		0.0000	0.0000	1	    	0.0000		;	0.0000
Hearth	1.2592	10.7605	4.5789	0.0687		0.8700	0.8700		0.8700	0.8700	0.0000	13,736.75 29	13,736.75 29	0.2633	0.2518	13,818.38 36
Landscaping	1.8162	0.6920	59.9434	3.1600e- 003		0.3304	0.3304		0.3304	0.3304		107.7004	107.7004	0.1044		110.3097
Total	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004	= =	1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 6.2 Area by SubCategory

# **Mitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/e	day							lb/d	ay		
Architectural Coating	1.2429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3550					0.0000	0.0000		0.0000	0.0000	1	i	0.0000		;	0.0000
Hearth	1.2592	10.7605	4.5789	0.0687		0.8700	0.8700		0.8700	0.8700	0.0000	13,736.75 29	13,736.75 29	0.2633	0.2518	13,818.38 36
Landscaping	1.8162	0.6920	59.9434	3.1600e- 003		0.3304	0.3304		0.3304	0.3304		107.7004	107.7004	0.1044		110.3097
Total	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004	=	1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

# **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type Number Hours/Day Hours/Year Horse Power Load Factor Fig. 1	Fuel Type
---------------------------------------------------------------------------	-----------

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

# **User Defined Equipment**

Equipment Type	Number
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# 11.0 Vegetation

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Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### Beverly Hills 2014 to 2021 HE

Los Angeles-South Coast County, Summer

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	725.00	Dwelling Unit	19.08	725,000.00	2074

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)33Climate Zone11Operational Year2021

Utility Company Southern California Edison

 CO2 Intensity
 483.27
 CH4 Intensity
 0
 N2O Intensity
 0

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

 $Woods to ves \ \ and \ fireplaces \ are \ not \ allowed \ in \ SCAQMD's \ jurisdiction.$ 

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	489,375.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,468,125.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	PhaseEndDate	7/13/2021	6/16/2021
tblEnergyUse	T24E	35.05	35.95
tblEnergyUse	T24NG	4,179.80	4,286.75
tblFireplaces	NumberGas	616.25	648.68
tblFireplaces	NumberNoFireplace	72.50	76.32
tblFireplaces	NumberWood	36.25	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.27
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	104.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	SU_TR	4.09	5.44
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	36.25	0.00
tblWoodstoves	NumberNoncatalytic	36.25	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

# 2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.1 Overall Construction (Maximum Daily Emission) <u>Unmitigated Construction</u>

0000.0	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	0.000	0000.0	0.000	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	mumixeM
0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	2021
	. kep/q									үер	)/qI					Year
COZe	NZO	CH⊄	Total CO2	NBio- COS	Bio- CO2	5.2M9 Total	Exhaust 7.2Mq	Fugitive 5.2Mq	PM10 Total	Exhaust PM10	Fugitive 01M9	ZOS	00	XON	ВОС	

# Mitigated Construction

0.000.0	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	0000.0	0000.0	0.000	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	mumixsM
0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	2021
		lay	p/ql							ДeУ	)/qI					Деяг
COSe	OZN	CH4	Total CO2	NBio- COS	Bio- CO2	8.SM9 IstoT	tsustx3 7.2Mq	Fugitive 5.2M9	OM90 Total	Exhaust 01M9	evijigu7 01M9	70S	00	XON	ROG	

00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	Percent Reduction
COSe	NZO	CH¢	Total CO2	NBio-COS	Bio- CO2	PM2.5 Total	Exhaust PM2.5	Fugitive PM2.5	OMPO Total	Exhaust PM10	Fugitive PM10	208	00	XON	ВОС	

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.2 Overall Operational Unmitigated Operational

67.178,08 60	3289.1	2.6058	56,104.35 82	56,104.35 82	0000.0	16.1541	60 <del>1</del> 9.1	8.5132	33.6223	1299.1	3096.18	8914.0	7262.425	31.5268	33.2314	IstoT
77.962,45 37	9 <del>1</del> 68.1	£761.2	42.621,46 70	42.621,45 70		7818.8	9906.0	S513.8	698Z.ZE	7926.0	2096.1E	448E.0	169.0232	18.4053	8298.41	əlidoM
2,143.320 2	1660.0	80 <del>1</del> 0.0	830.651,2 7	2,130.658 7		6 <del>1</del> 81.0	6481.0		6481.0	6481.0		7010.0	2017.0	0699.1	6361.0	Energy
13,928.69 85	8132.0	7798.0	34.448.61 46	54.448,61 54.45	0000.0	1.2004	1.2004		1.2004	1.2004		8170.0	64.5223	11.4524	EE73.81	Агеа
		sy	p/qI							yet	P/qI					Category
COSe	OZN	CH¢	Total CO2	NRIO- COS	BIO- COS	8.2M9 IstoT	Exhaust PM2.5	Fugitive PM2.5	01M9 IstoT	Exhaust PM10	Fugitive PM10	ZOS	00	×ON	ВОС	

#### Mitigated Operational

67.178,0 <b>2</b>	1.6855	8209.S	56,104.35 28	50,104.35 28	0000.0	1621.01	60 <del>1</del> 9.1	8.5132	33.6223	1.6621	31.9602	8914.0	724.2557	31.5268	33.2314	Total
77.962,45 37	9 <del>1</del> 68.1	£761.2	42.921,46 70	42.621,48 70		7818.8	9908.0	8.5132	698Z.ZE	79 <u>2</u> £.0	2096.1E	<del>14</del> 55.0	SES0.931	18.4053	8298.41	əlidoM
2,143.320 2	1680.0	80 <del>1</del> 0.0	839.081,2 7	838.651,2 7		6 <del>1</del> 81.0	6 <del>1</del> 81.0		6 <del>1</del> .61.0	6 <del>1</del> 81.0		7010.0	2017.0	0699.1	£261.0	Energy
69.826,61 85	8122.0	7798.0	24.448,61 46	54.448,61 34	0000.0	1.2004	1.2004		1.2004	1.2004		8170.0	64.5223	11.4524	££73.81	Агеа
		уб	p/qı							lay	o/qı					Category
					I	lstoT	6.2M9	5.2M9	Total	01M9	01M9					

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2021	6/16/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating - sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

# **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	ay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021

# **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	ay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	·····	0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	14.3628	18.4053	159.0232	0.3344	31.9602	0.3267	32.2869	8.5132	0.3056	8.8187		34,129.24 07	34,129.24 07	2.1973	1.3946	34,599.77 75
Unmitigated	14.3628	18.4053	159.0232	0.3344	31.9602	0.3267	32.2869	8.5132	0.3056	8.8187		34,129.24 07	34,129.24 07	2.1973	1.3946	34,599.77 75

# **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,944.00	3,944.00	3944.00	15,180,778	15,180,778
Total	3,944.00	3,944.00	3,944.00	15,180,778	15,180,778

#### 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
NaturalGas Unmitigated	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

# 5.2 Energy by Land Use - NaturalGas

#### **Unmitigated**

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Apartments Mid Rise	18110.6	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
Total		0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

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#### Beverly Hills 2014 to 2021 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# **5.2 Energy by Land Use - NaturalGas**

# **Mitigated**

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Apartments Mid Rise	18.1106	0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2
Total		0.1953	1.6690	0.7102	0.0107		0.1349	0.1349		0.1349	0.1349		2,130.658 7	2,130.658 7	0.0408	0.0391	2,143.320 2

# 6.0 Area Detail

# **6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Mitigated	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33
Unmitigated	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 6.2 Area by SubCategory

# **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	ay		
Architectural Coating	1.2429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3550					0.0000	0.0000		0.0000	0.0000	1	    	0.0000		;	0.0000
Hearth	1.2592	10.7605	4.5789	0.0687		0.8700	0.8700		0.8700	0.8700	0.0000	13,736.75 29	13,736.75 29	0.2633	0.2518	13,818.38 36
Landscaping	1.8162	0.6920	59.9434	3.1600e- 003		0.3304	0.3304		0.3304	0.3304		107.7004	107.7004	0.1044		110.3097
Total	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 6.2 Area by SubCategory

# **Mitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	ay		
Architectural Coating	1.2429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3550					0.0000	0.0000		0.0000	0.0000	1	i	0.0000		;	0.0000
Hearth	1.2592	10.7605	4.5789	0.0687		0.8700	0.8700		0.8700	0.8700	0.0000	13,736.75 29	13,736.75 29	0.2633	0.2518	13,818.38 36
Landscaping	1.8162	0.6920	59.9434	3.1600e- 003		0.3304	0.3304		0.3304	0.3304		107.7004	107.7004	0.1044		110.3097
Total	18.6733	11.4524	64.5223	0.0718		1.2004	1.2004		1.2004	1.2004	0.0000	13,844.45 34	13,844.45 34	0.3677	0.2518	13,928.69 33

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

# **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

# **User Defined Equipment**

Equipment Type	Number
----------------	--------

# 11.0 Vegetation

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### Beverly Hills 2014 to 2021 HE

#### **Los Angeles-South Coast County, Annual**

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	725.00	Dwelling Unit	19.08	725,000.00	2074

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)33Climate Zone11Operational Year2021

Utility Company Southern California Edison

 CO2 Intensity
 483.27
 CH4 Intensity
 0
 N2O Intensity
 0

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

 $Woods to ves \ \ and \ fireplaces \ are \ not \ allowed \ in \ SCAQMD's \ jurisdiction.$ 

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value				
tblArchitecturalCoating	ConstArea_Residential_Exterior	489,375.00	0.00				
tblArchitecturalCoating	ConstArea_Residential_Interior	1,468,125.00	0.00				
tblConstructionPhase	NumDays	20.00	1.00 6/16/2021				
tblConstructionPhase	PhaseEndDate	7/13/2021					
tblEnergyUse	T24E	35.05	35.95				
tblEnergyUse	T24NG	4,179.80	4,286.75				
tblFireplaces	NumberGas	616.25	648.68				
tblFireplaces	NumberNoFireplace	72.50	76.32				
tblFireplaces	NumberWood	36.25	0.00				
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00				
tblProjectCharacteristics	CH4IntensityFactor	0.029	0				
tblProjectCharacteristics	CO2IntensityFactor	702.44	483.27				
tblProjectCharacteristics	N2OIntensityFactor	0.006	0				
tblTripsAndVMT	WorkerTripNumber	104.00	0.00				
tblVehicleTrips	DV_TP	11.00	0.00				
tblVehicleTrips	PB_TP	3.00	0.00				
tblVehicleTrips	PR_TP	86.00	100.00				
tblVehicleTrips	ST_TR	4.91	5.44				
tblVehicleTrips	SU_TR	4.09	5.44				
tblWater	AerobicPercent	87.46	97.54				
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46				
tblWater	SepticTankPercent	10.33	0.00				
tblWoodstoves	NumberCatalytic	36.25	0.00				
tblWoodstoves	NumberNoncatalytic	36.25	0.00				
tblWoodstoves	WoodstoveDayYear	25.00	0.00				
tblWoodstoves	WoodstoveWoodMass	999.60	0.00				

# 2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.1 Overall Construction Unmitigated Construction

0000.0	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	mumixsM
0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	2021
	ηζ/ΤΜ						1y\enot									
COSe	OZN	CH¢	Total CO2	NBio- COS	Bio- CO2	6.2M9 IstoT	Exhaust 7.5Mq	Fugitive PM2.5	OM9 Total	Exhaust PM10	Fugitive 01M9	ZOS	00	XON	ROG	

# Mitigated Construction

0000.0	0000.0	0000.0	0.000	0000.0	0000.0	0000.0	0.000	0.000	0.000	0.000	0000.0	0000.0	0000.0	0000.0	0.000	mumixsM
0.000	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0.000	2021
ηγ\TM							ηγ/suot									
COSe	OZN	CH⊄	Total CO2	NBio- COS	Bio- CO2	8.SM9 IstoT	Exhaust 6.2Mq	Fugitive 7.5M9	OrM9 Total	Exhaust 01Mq	Fugitive 01M9	ZOS	00	XON	ROG	

		ırter)	eup/snot) XC	ч кое + ис	ətsgitiM mur	Maxin	narter)	p\snot) XON	ed ROG + 1	m Unmitiga	umixsM	Date	pu∃	Start Date		Quarter
00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	Percent Reduction
COZe	NZO	CH¢	Total CO2	NBio-CO2	Bio- CO2	8.SMQ IstoT	Exhaust 8.2Mq	Fugitive 5.2Mq	OM10 IstoT	Exhaust PM10	Fugitive PM10	zos	00	×ON	воя	

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Highest	

## 2.2 Overall Operational

**Unmitigated Operational** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ıs/yr							МТ	ſ √yr		
Area	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522		0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.2067
Energy	0.0356	0.3046	0.1296	1.9400e- 003		0.0246	0.0246		0.0246	0.0246	0.0000	961.6759	961.6759	6.7600e- 003	6.4700e- 003	963.7722
Mobile	2.5335	3.6646	28.3099	0.0588	5.7033	0.0594	5.7628	1.5216	0.0556	1.5771	0.0000	5,449.829 7	5,449.829 7	0.3702	0.2427	5,531.41 2
Waste						0.0000	0.0000		0.0000	0.0000	67.6975	0.0000	67.6975	4.0008	0.0000	167.717
Water				i .		0.0000	0.0000		0.0000	0.0000	16.7124	207.3529	224.0653	0.4798	0.0363	246.8909
Total	5.6585	4.1902	35.9897	0.0620	5.7033	0.1362	5.8396	1.5216	0.1324	1.6539	84.4099	6,786.843 8	6,871.253 6	4.8724	0.2884	7,079.00 <sup>-</sup>

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 2.2 Overall Operational

## **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	ns/yr							МТ	/yr		
Area	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522		0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.206
Energy	0.0356	0.3046	0.1296	1.9400e- 003		0.0246	0.0246		0.0246	0.0246	0.0000	961.6759	961.6759	6.7600e- 003	6.4700e- 003	963.772
Mobile	2.5335	3.6646	28.3099	0.0588	5.7033	0.0594	5.7628	1.5216	0.0556	1.5771	0.0000	5,449.829 7	5,449.829 7	0.3702	0.2427	5,531.4 2
Waste						0.0000	0.0000		0.0000	0.0000	67.6975	0.0000	67.6975	4.0008	0.0000	167.71
Water					-	0.0000	0.0000	-	0.0000	0.0000	16.7124	207.3529	224.0653	0.4798	0.0363	246.890
Total	5.6585	4.1902	35.9897	0.0620	5.7033	0.1362	5.8396	1.5216	0.1324	1.6539	84.4099	6,786.843	6,871.253 6	4.8724	0.2884	7,079.0 6

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

## **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2021	6/16/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

## 3.2 Architectural Coating - 2021

**Unmitigated Construction On-Site** 

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	, ! ! !	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.2 Architectural Coating - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021

## **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	2.5335	3.6646	28.3099	0.0588	5.7033	0.0594	5.7628	1.5216	0.0556	1.5771	0.0000	5,449.829 7	5,449.829 7	0.3702	0.2427	5,531.414 2
Unmitigated	2.5335	3.6646	28.3099	0.0588	5.7033	0.0594	5.7628	1.5216	0.0556	1.5771	0.0000	5,449.829 7	5,449.829 7	0.3702	0.2427	5,531.414 2

## **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,944.00	3,944.00	3944.00	15,180,778	15,180,778
Total	3,944.00	3,944.00	3,944.00	15,180,778	15,180,778

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.0 Energy Detail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							МТ	-/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	608.9215	608.9215	0.0000	0.0000	608.9215
Electricity Unmitigated			! !			0.0000	0.0000		0.0000	0.0000	0.0000	608.9215	608.9215	0.0000	0.0000	608.9215
NaturalGas Mitigated	0.0356	0.3046	0.1296	1.9400e- 003		0.0246	0.0246		0.0246	0.0246	0.0000	352.7545	352.7545	6.7600e- 003	6.4700e- 003	354.8507
NaturalGas Unmitigated	0.0356	0.3046	0.1296	1.9400e- 003		0.0246	0.0246		0.0246	0.0246	0.0000	352.7545	352.7545	6.7600e- 003	6.4700e- 003	354.8507

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.2 Energy by Land Use - NaturalGas Unmitigated

 324.850	-9004-9 003	-90097.8 600	352.7545	352.7545	0000.0	9420.0	0.0246		0.0246	0.0246		1.9400e- 003	9621.0	9705.0	9980.0		Total
 324.820	-90074.8 600	-90097.9 600	3457.238	352.7545	0000.0	9 <del>1</del> 20.0	9 <del>7</del> 20.0		9 <del>7</del> 20.0	0.0246		-9400 <del>6</del> -1 600	9621.0	9408.0	9980.0	978019.8 900+	Apartments Mid Sise
										kBTU√yr	esU bnsJ						
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	8.2Mq IstoT	Exhaust 7.2Mq	Fugitive 5.2Mq	OMPq Total	Exhaust PM10	Fugitive PM10	ZOS	00	XON	ВОС	NaturalGa esU s	

# Mitigated

354.8507	- <del>9</del> 0047.9	- <del>9</del> 0097.8	352.7545	352.7545	0000.0	0.0246	0.0246		9420.0	9770.0		1.9400e- 003	9621.0	9705.0	9920.0		Total
7028.42E	-90074.8 800	-90097.9 :000	3 <del>1</del> 27.238	352.7545	0000.0	9 <b>⊅</b> Z0.0	9 <del>7</del> Z0.0		9 <del>1</del> 20.0	9 <b>≯</b> Z0.0	! ! !	-900 <del>1</del> 0.1 600	9621.0	9 <del>1</del> 0£.0	9980.0	978019.8 900+	Apartments Mid AsiR
	ηγ/TM									3/yr	enot					kBTU√yr	esU bnsJ
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	6.2M9 lstoT	tsuadx∃ 3.2Mq	Fugitive 7.5M9	OrM9 Total	Exhaust 01Mq	Fugitive 01M9	ZOS	00	XON	ВОС	NaturalGa seU s	

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.3 Energy by Land Use - Electricity Unmitigated

21 <u>2</u> 6.809	0.000	0000.0	8126.809		IstoT
3126.809	0000.0	0000.0	3126.809	988777.2 900+	Apartments Mid Rise
	/۸۱۸	TM		κмμ/λι	esU bnsd
COZe	NSO	CH4	Total CO2	Electricity Sebul	

# <u>Mitigated</u>

3126.809	0.000	0.000	2126.80a		IstoT
3126.809	0000.0	0000.0	2126.809	2.77783e +006	Apartments Mid Rise
	/۸د	TM		κ <sub>Μ</sub> μ\λι	esU bnsJ
COSe	NSO	CH⊄	Total CO2	Electricity Use	

#### 6.0 Area Detail

## 6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522		0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.2067
Unmitigated	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522	i i i	0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.2067

# 6.2 Area by SubCategory

## **Unmitigated**

	ROG	NOx	со		Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					tons	s/yr							МТ	/yr		
Architectural Coating	0.2268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6198				1	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0157	0.1345	0.0572	8.6000e- 004		0.0109	0.0109		0.0109	0.0109	0.0000	155.7722	155.7722	2.9900e- 003	2.8600e- 003	156.6978
Landscaping	0.2270	0.0865	7.4929	3.9000e- 004		0.0413	0.0413		0.0413	0.0413	0.0000	12.2130	12.2130	0.0118	0.0000	12.5089
Total	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522	-	0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.2067

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

## **Mitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МП	√/yr		
Architectural Coating	0.2268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6198					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0157	0.1345	0.0572	8.6000e- 004		0.0109	0.0109		0.0109	0.0109	0.0000	155.7722	155.7722	2.9900e- 003	2.8600e- 003	156.697
Landscaping	0.2270	0.0865	7.4929	3.9000e- 004		0.0413	0.0413		0.0413	0.0413	0.0000	12.2130	12.2130	0.0118	0.0000	12.5089
Total	3.0894	0.2210	7.5502	1.2500e- 003		0.0522	0.0522	= =	0.0522	0.0522	0.0000	167.9852	167.9852	0.0148	2.8600e- 003	169.2067

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	-/yr	
lga.ca	224.0653	0.4798	0.0363	246.8909
	224.0653	0.4798	0.0363	246.8909

# 7.2 Water by Land Use

**Unmitigated** 

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	47.2367 / 29.7796	224.0653	0.4798	0.0363	246.8909
Total		224.0653	0.4798	0.0363	246.8909

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 7.2 Water by Land Use

## **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	47.2367 / 29.7796		0.4798	0.0363	246.8909
Total		224.0653	0.4798	0.0363	246.8909

## 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e		
	MT/yr					
_		4.0008	0.0000	167.7177		
	67.6975	4.0008	0.0000	167.7177		

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 8.2 Waste by Land Use Unnitigated

7717.731	0000.0	8000.4	<b>9</b> 769.79		IstoT
7717.731	0000.0	8000.4	9469 <sup>.</sup> 49		Apartments Mid BaiA
	/۸۱	snot	esU bnsJ		
COZe	NZO	CH4	Total CO2	Waste Disposed	

# <u>Mitigated</u>

7717.731	0000.0	8000.4	<b>9</b> 469.79		lstoT
7717.731	0000.0	8000.4	9469 <sup>.</sup> 49		Apartments Mid Rise
	//\٢	snot	esU bnsJ		
COSe	NSO	CH4	Total CO2	Waste Disposed	

## 9.0 Operational Offroad

Fuel Type	Load Factor	Horse Power	Days/Year	Hours/Day	Mumber	Ednibment Iype
ouvit louid	load Easter	Horse Dower	100V/2VC()	Yed/salled	γοφωτηγ	Pay Type

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

## **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

## **User Defined Equipment**

Equipment Type	Number

## 11.0 Vegetation

# Attachment A-3 CalEEMod Output -2021-2029 Housing Element CalEEMod Summary

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Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Winter

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## Beverly Hills 2021 to 2029 HE

Los Angeles-South Coast County, Winter

## 1.0 Project Characteristics

## 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	8,758.00	Dwelling Unit	109.00	8,758,000.00	25048

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)33Climate Zone11Operational Year2029

Utility Company Southern California Edison

 CO2 Intensity
 320.92
 CH4 Intensity
 0
 N2O Intensity
 0

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

Woodstoves - Wood stoves and fireplaces are not allowed in SCAQMD's jurisdiction.

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Area Mitigation - Potential Mitigation Reductions

**Energy Mitigation -**

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation - Assumes 5% over 2019 Title 24 reductions required.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value 0.00	
tblArchitecturalCoating	ConstArea_Residential_Exterior	5,911,650.00		
tblArchitecturalCoating	ConstArea_Residential_Interior	17,734,950.00	0.00	
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValu e	50	10	
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValu e	50	10	
tblConstructionPhase	NumDays	220.00	1.00	
tblConstructionPhase	PhaseEndDate	11/4/2021	1/1/2021	
tblFireplaces	NumberGas	7,444.30	7,836.11	
tblFireplaces	NumberNoFireplace	875.80	921.89	
tblFireplaces	NumberWood	437.90	0.00	
tblLandUse	LotAcreage	230.47	109.00	
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00	
tblProjectCharacteristics	CH4IntensityFactor	0.029	0	
tblProjectCharacteristics	CO2IntensityFactor	702.44	320.92	
tblProjectCharacteristics	N2OIntensityFactor	0.006	0	
tblTripsAndVMT	WorkerTripNumber	1,261.00	0.00	
tblVehicleTrips	DV_TP	11.00	0.00	
tblVehicleTrips	PB_TP	3.00	0.00	
tblVehicleTrips	PR_TP	86.00	100.00	
tblVehicleTrips	ST_TR	4.91	5.44	
tblVehicleTrips	SU_TR	4.09	5.44	
tblWater	AerobicPercent	87.46	97.54	
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46	
tblWater	SepticTankPercent	10.33	0.00	
tblWoodstoves	NumberCatalytic	437.90	0.00	
tblWoodstoves	NumberNoncatalytic	437.90	0.00	

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## Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/c	lay		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	lay		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.2 Overall Operational Unmitigated Operational

529,391.6 034	16.9303	472T.82	1.878,828 119	1.878,828 119	0000.0	120.9635	6490.81	7868.201	404.4282	18.2150	2812.888	1180.4	081.631,2 3	9056.862	362.2652	IstoT
932,544.5	712 <del>4</del> .81	Z1.8135	9.666,05£	3.999,055 078		97£8.401	6146.1	7268.201	388.3022	2.0890	ZE12.88E	1980.8	1,373.526 2	140.7232	134.6263	əlidoM
25,587.60 25	£99 <del>1</del> .0	9784.0	25,436.45 10	25,436.45 10		0119.1	0119.1		0119.1	0119.1		2721.0	8874.8	2926.91	7155.2	Energy
168,259.4 263	3.0423	4.4264	1.242,731 047	1.S4S,731 047	0000	14.5150	14.5150		14.5150	14.5150		6498.0	2971.777	138.3022	2705.3072	БЭ1А
		эу	PP/qI							lay	P/qI					Category
COSe	OZN	CH <del>4</del>	Total CO2	NBio- COS	Bio- COS	8.2M9 IstoT	Exhaust PM2.5	Fugitive 7.2Mq	PM10 Total	Exhaust PM10	Fugitive PM10	208	00	XON	ВОВ	

## Mitigated Operational

361,830.3 382	2778.81	2374.62	357,108.0 702	357,108.0 702	0000.0	7416.011	0614.7	7268.201	£677.£6£	1993.7	386.2132	1742.8	2,086.343 6	168.3298	4176.888	Total
932°96 <del>7</del> 49	7124.81	21.8135	3.999,055 078	3.666,0££ 7.666,0		97£8.401	6146.1	7268.201	388.3022	2.0890	2812.888	1980.5	828.878,1 2	262T.041	134.6263	əlidoM
75,994.14 57	9994.0	2974.0	54,846.49	54'846'45		9£73.1	9£73.1		9£73.1	9£73.1		0.1242	ZZ8Z.8	1694.61	8772.S	Energy
129.192,1 8	0000.0	3981.1	826.132,1 E	826.192,1 E	0000.0	3:9035	3:9035		3:9035	3:9035		89£0.0	Z363.40T	8.1435	9490.791	Агеа
		ay	p/qı							lay	p/qı					Category
		CH¢	Total CO2		I	5.2M9 TetoT	Exhaust PM2.5	Fugitive 5.2Mq	PM10 Total	Exhaust PM10	Fugitive PM10	zos	00	×ON	ВОС	

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	7.81	43.69	3.37	20.44	0.00	58.46	2.63	0.00	58.94	8.80	0.00	31.81	31.81	12.16	18.03	31.65

## 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

## **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

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## Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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## Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 3.2 Architectural Coating - 2021

## **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	i i	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

# **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	134.6263	140.7232	1,373.526 2	3.0861	386.2132	2.0890	388.3022	102.8957	1.9419	104.8376		330,999.5 670	330,999.5 670	21.8135	13.4217	335,544.5 709
Unmitigated	134.6263	140.7232	1,373.526 2	3.0861	386.2132	2.0890	388.3022	102.8957	1.9419	104.8376		330,999.5 670	330,999.5 670	21.8135	13.4217	335,544.5 709

## **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	47,643.52	47,643.52	47643.52	183,383,796	183,383,796
Total	47,643.52	47,643.52	47,643.52	183,383,796	183,383,796

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.531474	0.067154	0.192702	0.126421	0.024086	0.006875	0.011564	0.007937	0.000940	0.000574	0.026268	0.000718	0.003288

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 5.0 Energy Detail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	2.2776	19.4631	8.2822	0.1242		1.5736	1.5736		1.5736	1.5736		24,846.49 54	24,846.49 54	0.4762	0.4555	24,994.14 57
NaturalGas Unmitigated	2.3317	19.9252	8.4788	0.1272		1.6110	1.6110		1.6110	1.6110		25,436.45 01	25,436.45 01	0.4875	0.4663	25,587.60 62

#### BAFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.2 Energy by Land Use - NaturalGas Unmitigated

25,587.60 28	6997.0	6784.0	25,436.45 01	25,436.45 01		0119.1	0119.1		0119.1	0113.1		2721.0	8874.8	19.9252	7155.5		lstoT
09.787,82 28	£99†.0	9784.0	25,436.45 01	25,436.45 01		0119.1	0119.1		0119.1	0119.1		2721.0	887 <i>4.</i> 8	7976:61	7166.2	216210	biM stnemtrsqA esiЯ
		Yet	P/qI							үер	P/qI					KBTU/yr	esU bnsJ
CO2e	NSO	CH4	Total CO2	NBio- COS	Bio- CO2	8.SM9 IstoT	Exhaust 6.2Mq	Fugitive 5.2M9	PM10 IstoT	Exhaust PM10	Fugitive 01M9	70S	00	XON	ВОС	NaturalGa esU s	

## <u>Mitigated</u>

41.994.14 73	0.4555	2974.0	54,846.49	54,846.49		9£7 <b>3</b> .1	9£73.1		9£73.1	9£73.1		0.1242	8.2822	1694.61	2.2776		Total
41.499,42 73		<u>2</u> 974.0	<del>7</del> 9	54,846.49		9£73.1	9£73.1		9£73.1	9£73.1		0.1242	ZZ8Z.8	169 <del>4</del> .61		961.11S	Apartments Mid Rise
		эу	P/qI							yey	P/qI					KBTU√yr	esU bnsJ
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	5.2M9 Total	tshaust 7.2Mq	Fugitive PM2.5	PM10 Total	Exhaust PM10	Fugitive PM10	zos	00	XON	ВОС	NaturalGa esU s	

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

Use Electric Lawnmower

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	197.0676	8.1435	704.5352	0.0368		3.9035	3.9035		3.9035	3.9035	0.0000	1,261.958 3	1,261.958 3	1.1865	0.0000	1,291.621 6
Unmitigated	225.3072	138.3022	777.1752	0.8679		14.5150	14.5150		14.5150	14.5150	0.0000	167,242.1 740	167,242.1 740	4.4264	3.0423	168,259.4 263

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

## **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	lay		
Architectural Coating	15.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	173.4084					0.0000	0.0000		0.0000	0.0000	1	 	0.0000			0.0000
Hearth	15.2113	129.9872	55.3137	0.8297		10.5096	10.5096		10.5096	10.5096	0.0000	165,941.1 529	165,941.1 529	3.1805	3.0423	166,927.2 582
Landscaping	21.6736	8.3150	721.8615	0.0382		4.0054	4.0054		4.0054	4.0054		1,301.021 0	1,301.021 0	1.2459		1,332.168 0
Total	225.3072	138.3022	777.1752	0.8679		14.5150	14.5150		14.5150	14.5150	0.0000	167,242.1 740	167,242.1 740	4.4264	3.0423	168,259.4 263

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

## **Mitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	ay		
Architectural Coating	3.0028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	173.4084					0.0000	0.0000		0.0000	0.0000	1	i	0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	20.6564	8.1435	704.5352	0.0368		3.9035	3.9035		3.9035	3.9035		1,261.958 3	1,261.958 3	1.1865		1,291.62 6
Total	197.0675	8.1435	704.5352	0.0368		3.9035	3.9035	- 1	3.9035	3.9035	0.0000	1,261.958 3	1,261.958 3	1.1865	0.0000	1,291.62 6

## 7.0 Water Detail

# 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Winter

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
		•	•			,,

## **10.0 Stationary Equipment**

## **Fire Pumps and Emergency Generators**

Equipment Type Number Hours/Day Hours/Year Horse Power Load Factor F	Fuel Type
----------------------------------------------------------------------	-----------

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

## **User Defined Equipment**

Equipment Type	Number
----------------	--------

## 11.0 Vegetation

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Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### Beverly Hills 2021 to 2029 HE

Los Angeles-South Coast County, Summer

## 1.0 Project Characteristics

## 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	8,758.00	Dwelling Unit	109.00	8,758,000.00	25048

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)33

Climate Zone 11 Operational Year 2029

Utility Company Southern California Edison

CO2 Intensity 320.92 CH4 Intensity 0 N2O Intensity 0 (lb/MWhr) (lb/MWhr) (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

Woodstoves - Wood stoves and fireplaces are not allowed in SCAQMD's jurisdiction.

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Area Mitigation - Potential Mitigation Reductions

**Energy Mitigation -**

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation - Assumes 5% over 2019 Title 24 reductions required.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
blArchitecturalCoating	ConstArea_Residential_Exterior	5,911,650.00	0.00
blArchitecturalCoating	ConstArea_Residential_Interior	17,734,950.00	0.00
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValu e	50	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValu e	50	10
tblConstructionPhase	NumDays	220.00	1.00
tblConstructionPhase	PhaseEndDate	11/4/2021	1/1/2021
tblFireplaces	NumberGas	7,444.30	7,836.11
tblFireplaces	NumberNoFireplace	875.80	921.89
tblFireplaces	NumberWood	437.90	0.00
tblLandUse	LotAcreage	230.47	109.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
lProjectCharacteristics	CH4IntensityFactor	0.029	0
lProjectCharacteristics	CO2IntensityFactor	702.44	320.92
lProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	1,261.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	SU_TR	4.09	5.44
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	437.90	0.00
tblWoodstoves	NumberNoncatalytic	437.90	0.00

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## Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Summer

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	lay	-44	
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	lay		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 2.2 Overall Operational Unmitigated Operational

543,661.6 543,661.6	16.4053	8482.2348	6.311,85.2 783	6.311,8£ <b>2</b> £87	0000.0	120.9629	2790.81	7868.201	404.4275	18.2143	386.2132	4.2152	2,184.550 6	288.738S	364.4606	IstoT
3.418,645 679	7968.S1	602£.12	8.85,438.3 545	342'438'3 242'438'3		69£8. <del>4</del> 01	2146.1	7368.201	388.3015	2.0883	2812.88E	3.2201	968.866,1	130.5060	7128.881	əlidoM
25,587.60 25	£99 <del>1</del> .0	378₽.0	25,436.45 10	25,436.45 10		0119.1	0119.1		0119.1	0119.1		2721.0	8874.8	2926.61	7188.2	Euergy
168,259.4 263	8240.8	4,4264	1. <u>S4</u> S,781 047	1.242,781 047	0000.0	14.5150	0919.41		14.5150	14.5150		6498.0	2871.777	138.3022	226.3072	Б91А
		βλ	p/ql							yei	p/qı					Category
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	5.2M9 IstoT	Exhaust PM2.5	Fugitive 5.2Mq	PM10 Total	Exhaust PM10	Fugitive PM10	zos	00	XON	КОС	

## Mitigated Operational

5.001,875 228	13.3522	9886.22	8.848,17£ 670	8.848,17£ 970	0000.0	110.3140	£814.7	768.201	3877.565	₽ <b>5</b> 95.7	386.2132	3.3812	2,111,713 9	158.1126	936.1669	Total
676 81415 976	7968.21	21.3209	342,438.3 543	342,438.3 543		69£8.401	2149.1	7368.201	388.3015	2.0883	2812.888	3.2201	968.86£,1	130.5060	7128.3E1	əlidoM
54,994.14 57	9994.0	2974.0	54,846.49	54,846.49		9873.1	9873.1		9873.1	9873.1		0.1242	ZZ8Z.8	1694.61	9772.2	Energy
129.162,1 6	0000.0	3981.1	836.132,1 E	826.192,1 8	0000.0	3:9035	3:9035		3.9035	3:9035		89£0.0	704.5352	8.1435	9790.791	Area
лер/q <sub> </sub>												Category				
		CH4	Total CO2		I	6.2M9 TetoT	Exhaust PM2.5	Fugitive 5.2Mq	PM10 Total	Exhaust PM10	Fugitive PM10	zos	00	×ON	ВОС	

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	7.76	45.24	3.33	19.79	0.00	58.46	2.63	0.00	58.94	8.80	0.00	30.95	30.95	12.39	18.61	30.82

#### 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

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#### Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 3.2 Architectural Coating - 2021 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000		0.0000	0.0000	0.0000	i i	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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#### Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Summer

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 3.2 Architectural Coating - 2021

#### **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	     	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

## **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.000

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day				lb/c	lay					
Mitigated	136.8217	130.5060	1,398.896 5	3.2201	386.2132	2.0883	388.3015	102.8957	1.9412	104.8369		345,438.3 543	345,438.3 543	21.3209	12.8967	349,814.5 979
Unmitigated	136.8217	130.5060	1,398.896 5	3.2201	386.2132	2.0883	388.3015	102.8957	1.9412	104.8369		345,438.3 543	345,438.3 543	21.3209	12.8967	349,814.5 979

#### **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	47,643.52	47,643.52	47643.52	183,383,796	183,383,796
Total	47,643.52	47,643.52	47,643.52	183,383,796	183,383,796

#### 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Apartments Mid Rise	0.531474	0.067154	0.192702	0.126421	0.024086	0.006875	0.011564	0.007937	0.000940	0.000574	0.026268	0.000718	0.003288

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 5.0 Energy Detail

Historical Energy Use: N

#### **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	2.2776	19.4631	8.2822	0.1242		1.5736	1.5736		1.5736	1.5736		24,846.49 54	24,846.49 54	0.4762	0.4555	24,994.14 57
NaturalGas Unmitigated	2.3317	19.9252	8.4788	0.1272		1.6110	1.6110		1.6110	1.6110		25,436.45 01	25,436.45 01	0.4875	0.4663	25,587.60 62

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

# 5.2 Energy by Land Use - NaturalGas Unmitigated

09.782,82 29	6994.0	G784.0	25,436.45 01	25,436.45 01		0119.1	0119.1		0119.1	0113.1		2721.0	8874.8	7976:61	7188.2		Total
09.782,82 29	£99 <del>1</del> .0	9784.0	25,436.45 01	25,436.45 01		0119.1	0119.1		0119.1	0119.1		2721.0	887 <i>4</i> .8	7976.61	71EE.S	216210	biM stnemtsqA esiЯ
		yey	P/qI							үер	P/qI					KBTU/yr	esU bnsJ
COSe	OZN	CH¢	Total CO2	NBio- CO2	Sio- CO2	6.SM9 IstoT	Exhaust 6.2Mq	Fugitive 7.2M9	PM10 IstoT	Exhaust PM10	Fugitive 01M9	ZOS	00	XON	ВОС	BaturalGa esU s	

## <u>Mitigated</u>

41.994.14 73	0.4555	2974.0	54,846.49	54,846.49		9£7 <b>3</b> .1	9£73.1		9£73.1	9£73.1		0.1242	8.2822	1694.61	2.2776		Total
41.499,42 73		<u>2</u> 974.0	<del>7</del> 9	54,846.49		9£73.1	9£73.1		9£73.1	9£73.1		0.1242	ZZ8Z.8	169 <del>4</del> .61		961.11S	Apartments Mid Rise
		ау	P/qI							yey	P/qI					KBTU√yr	esU bnsJ
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	5.2M9 Total	tshaust 7.2Mq	Fugitive PM2.5	PM10 Total	Exhaust PM10	Fugitive PM10	zos	00	XON	ВОС	NaturalGa esU s	

## 6.0 Area Detail

#### 6.1 Mitigation Measures Area

Use Electric Lawnmower

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	197.0676	8.1435	704.5352	0.0368		3.9035	3.9035		3.9035	3.9035	0.0000	1,261.958 3	1,261.958 3	1.1865	0.0000	1,291.621 6
Unmitigated	225.3072	138.3022	777.1752	0.8679		14.5150	14.5150		14.5150	14.5150	0.0000	167,242.1 740	167,242.1 740	4.4264	3.0423	168,259.4 263

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	lay		
Architectural Coating	15.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	173.4084					0.0000	0.0000		0.0000	0.0000	1	i	0.0000		;	0.0000
Hearth	15.2113	129.9872	55.3137	0.8297		10.5096	10.5096		10.5096	10.5096	0.0000	165,941.1 529	165,941.1 529	3.1805	3.0423	166,927.2 582
Landscaping	21.6736	8.3150	721.8615	0.0382		4.0054	4.0054		4.0054	4.0054		1,301.021 0	1,301.021 0	1.2459		1,332.168 0
Total	225.3072	138.3022	777.1752	0.8679		14.5150	14.5150	= =	14.5150	14.5150	0.0000	167,242.1 740	167,242.1 740	4.4264	3.0423	168,259.4 263

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/	day							lb/d	ay		
Architectural Coating	3.0028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	173.4084					0.0000	0.0000		0.0000	0.0000	1	i	0.0000		;	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	20.6564	8.1435	704.5352	0.0368		3.9035	3.9035		3.9035	3.9035		1,261.958 3	1,261.958 3	1.1865		1,291.621 6
Total	197.0675	8.1435	704.5352	0.0368		3.9035	3.9035		3.9035	3.9035	0.0000	1,261.958 3	1,261.958 3	1.1865	0.0000	1,291.621 6

#### 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
		•	•			,,

#### **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

	Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
--	----------------	--------	-----------	------------	-------------	-------------	-----------

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type	Number
----------------	--------

## 11.0 Vegetation

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### Beverly Hills 2021 to 2029 HE

#### Los Angeles-South Coast County, Annual

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	8,758.00	Dwelling Unit	109.00	8,758,000.00	25048

#### 1.2 Other Project Characteristics

UrbanizationUrbanWind Speed (m/s)2.2Precipitation Freq (Days)33Climate Zone11Operational Year2029

Utility Company Southern California Edison

 CO2 Intensity
 320.92
 CH4 Intensity
 0
 N2O Intensity
 0

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - No construction modeled

Off-road Equipment - No Construction Modeled

Trips and VMT - No Construction Modeled

Architectural Coating - No Construction Modeled

Vehicle Trips - See Assumptions

Woodstoves - Wood stoves and fireplaces are not allowed in SCAQMD's jurisdiction.

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Area Mitigation - Potential Mitigation Reductions

**Energy Mitigation -**

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation - Assumes 5% over 2019 Title 24 reductions required.

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	5,911,650.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	17,734,950.00	0.00
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValu e	50	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValu e	50	10
tblConstructionPhase	NumDays	220.00	1.00
tblConstructionPhase	PhaseEndDate	11/4/2021	1/1/2021
tblFireplaces	NumberGas	7,444.30	7,836.11
tblFireplaces	NumberNoFireplace	875.80	921.89
tblFireplaces	NumberWood	437.90	0.00
tblLandUse	LotAcreage	230.47	109.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	320.92
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	1,261.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	5.44
tblVehicleTrips	SU_TR	4.09	5.44
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	437.90	0.00
tblWoodstoves	NumberNoncatalytic	437.90	0.00

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

#### 2.1 Overall Construction

#### **Unmitigated Construction**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MT	/yr		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

## 2.2 Overall Operational

#### **Unmitigated Operational**

ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
1				ton	s/yr							МТ	/yr		
37.2864	2.6642	90.9241	0.0151		0.6320	0.6320		0.6320	0.6320	0.0000	2,029.274 3	2,029.274 3	0.1774	0.0345	2,043.98
0.4255	3.6364	1.5474	0.0232		0.2940	0.2940		0.2940	0.2940	0.0000	9,094.811 4	9,094.811 4	0.0807	0.0772	9,119.83 0
24.1517	25.9727	251.9436	0.5675	68.9208	0.3797	69.3004	18.3907	0.3529	18.7437	0.0000	55,223.45 16	55,223.45 16	3.5858	2.2298	55,977.5 09
					0.0000	0.0000		0.0000	0.0000	817.7856	0.0000	817.7856	48.3298	0.0000	2,026.02 3
				1)	0.0000	0.0000		0.0000	0.0000	201.8859	1,663.351 7	1,865.237 5	5.7960	0.4390	2,140.96 8
61.8636	32.2733	344.4151	0.6059	68.9208	1.3057	70.2265	18.3907	1.2790	19.6697	1,019.671 5	68,010.88 90	69,030.56 05	57.9696	2.7805	71,308.3 55
	37.2864 0.4255 24.1517	37.2864	37.2864	37.2864   2.6642   90.9241   0.0151 0.4255   3.6364   1.5474   0.0232 24.1517   25.9727   251.9436   0.5675	37.2864   2.6642   90.9241   0.0151   0.4255   3.6364   1.5474   0.0232   24.1517   25.9727   251.9436   0.5675   68.9208	PM10   PM10   tons/yr	PM10   PM10   Total   tons/yr	PM10   PM10   Total   PM2.5   tons/yr	tons/yr  37.2864   2.6642   90.9241   0.0151   0.6320   0.6320   0.6320   0.6320   0.4255   3.6364   1.5474   0.0232   0.2940   0.2940   0.2940   0.2940   0.2940   24.1517   25.9727   251.9436   0.5675   68.9208   0.3797   69.3004   18.3907   0.3529   0.0000   0.0000   0.0000   0.0000   0.0000	PM10	PM10	PM10	Name	PM10	Name

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

#### 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	34.7771	1.0179	88.0669	4.6000e- 003		0.4879	0.4879		0.4879	0.4879	0.0000	143.1037	143.1037	0.1346	0.0000	146.467
Energy	0.4157	3.5520	1.5115	0.0227		0.2872	0.2872		0.2872	0.2872	0.0000	8,994.903 6	8,994.903 6	0.0788	0.0754	9,019.3 8
Mobile	24.1517	25.9727	251.9436	0.5675	68.9208	0.3797	69.3004	18.3907	0.3529	18.7437	0.0000	55,223.45 16	55,223.45 16	3.5858	2.2298	55,977. 09
Waste						0.0000	0.0000		0.0000	0.0000	817.7856	0.0000	817.7856	48.3298	0.0000	2,026.0
Water						0.0000	0.0000	-	0.0000	0.0000	191.7916	1,580.184 1	1,771.975 7	5.5062	0.4171	2,033.9 3
Total	59.3444	30.5426	341.5220	0.5948	68.9208	1.1548	70.0756	18.3907	1.1281	19.5188	1,009.577	65,941.64 29	66,951.22 01	57.6351	2.7223	69,203. 76

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	4.07	5.36	0.84	1.83	0.00	11.56	0.21	0.00	11.80	0.77	0.99	3.04	3.01	0.58	2.09	2.95

## 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/1/2021	1/1/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

#### 3.2 Architectural Coating - 2021

**Unmitigated Construction On-Site** 

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 3.2 Architectural Coating - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 3.2 Architectural Coating - 2021

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 4.0 Operational Detail - Mobile

## **4.1 Mitigation Measures Mobile**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	24.1517	25.9727	251.9436	0.5675	68.9208	0.3797	69.3004	18.3907	0.3529	18.7437	0.0000	55,223.45 16	55,223.45 16	3.5858	2.2298	55,977.57 09
Unmitigated	24.1517	25.9727	251.9436	0.5675	68.9208	0.3797	69.3004	18.3907	0.3529	18.7437	0.0000	55,223.45 16	55,223.45 16	3.5858	2.2298	55,977.57 09

## **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	47,643.52	47,643.52	47643.52	183,383,796	183,383,796
Total	47,643.52	47,643.52	47,643.52	183,383,796	183,383,796

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.531474	0.067154	0.192702	0.126421	0.024086	0.006875	0.011564	0.007937	0.000940	0.000574	0.026268	0.000718	0.003288

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 5.0 Energy Detail

Historical Energy Use: N

## **5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr					-		MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,881.287 6	4,881.287 6	0.0000	0.0000	4,881.287 6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,883.521 9	4,883.521 9	0.0000	0.0000	4,883.521 9
NaturalGas Mitigated	0.4157	3.5520	1.5115	0.0227		0.2872	0.2872		0.2872	0.2872	0.0000	4,113.616 0	4,113.616 0	0.0788	0.0754	4,138.061 1
NaturalGas Unmitigated	0.4255	3.6364	1.5474	0.0232		0.2940	0.2940	;	0.2940	0.2940	0.0000	4,211.289 6	4,211.289 6	0.0807	0.0772	4,236.315 2

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 5.2 Energy by Land Use - NaturalGas Unmitigated

4,236.315 2	2770.0	7080.0	4,211.289 6	682.112,4 6	0000.0	0,2940	0.2940		0.2940	0,2940		0.0232	4742.1	3.6364	0.4255		IstoT
315.362,4 2	2770.0	7080.0	682.112,4 9	682.112,4 6	0000.0	0 <del>7</del> 6Z.0	0+62.0		05.2940	0 <del>1</del> 6Z.0		2620.0	₽ <b>८</b> ₽₽.1	<del>1</del> 989.€	9924.0	99168.7 700+	Apartments Mid Rise
		/۸د	TM							s/yr	not					kBTU√yr	esU bnsJ
COSe	NZO	CH¢	Total CO2	NBio- COS	Bio- CO2	8.2Mq IstoT	Exhaust 7.2Mq	Fugitive 5.2Mq	OM90 Total	Exhaust 01Mq	Fugitive PM10	205	00	XON	ВОG	NaturalGa esU s	

## Mitigated

190.881,4 1	₱\$ <b>40.0</b>	8870.0	913.611,4 0	919.611,4 0	0000.0	2782.0	2782.0		2782.0	2782.0		7220.0	3113.1	3.5520	<b>7314.0</b>		Total
138.061 1	<b>₽9</b> ∠0.0	8870.0	913.511,4 0	913.811,4 0	0000.0	2782.0	2782.0		2782.0	2782.0		7220.0	3113.1	3.5520	7314.0	963807.7 700+	Apartments Mid Rise
		/ <b>\</b> /L	TM.							3/yr	suot					KBTU√yr	esU bnsJ
CO2e	OZN	CH⊄	SOO lstoT	NBio- COS	Bio- CO2	5.SM9 lstoT	tshaust 7.2Mq	Fugitive 7.2M9	OrM9 IstoT	Exhaust PM10	Fugitive PM10	ZOS	00	XON	ВОВ	NaturalGa s Use	

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 5.3 Energy by Land Use - Electricity Unmitigated

153.588,4 9	0.000	0.000	1583.521 9		lstoT
153.588,4 9	0000.0	0000.0	1,883.521 9	9:35483e +007	Apartments Mid Rise
	/۸۱	TM		κмμ/λι	esU bnsJ
COSe	NZO	CH4	Total CO2	Electricity 9sU	

## <u>Mitigated</u>

782.188,4 8	0.000	0.000	782.188,4 9		Total
782.188,4 6	0000.0	0000.0	782.188,4 9	3.3533e +007	Apartments Mid Rise
	/۸د	TM		κλλην/λι	esU bnsd
COSe	NSO	CH⊄	Total CO2	Electricity Use	

#### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

Use Electric Lawnmower

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	34.7771	1.0179	88.0669	4.6000e- 003		0.4879	0.4879		0.4879	0.4879	0.0000	143.1037	143.1037	0.1346	0.0000	146.4674
Unmitigated	37.2864	2.6642	90.9241	0.0151		0.6320	0.6320		0.6320	0.6320	0.0000	2,029.274 3	2,029.274 3	0.1774	0.0345	2,043.988 6

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	2.7401					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	31.6470					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1901	1.6248	0.6914	0.0104		0.1314	0.1314		0.1314	0.1314	0.0000	1,881.741 0	1,881.741 0	0.0361	0.0345	1,892.923 3
Landscaping	2.7092	1.0394	90.2327	4.7700e- 003		0.5007	0.5007		0.5007	0.5007	0.0000	147.5333	147.5333	0.1413	0.0000	151.0653
Total	37.2864	2.6642	90.9241	0.0151		0.6320	0.6320	= =	0.6320	0.6320	0.0000	2,029.274 3	2,029.274 3	0.1774	0.0345	2,043.988 6

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							MT	/yr		
Architectural Coating	0.5480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	31.6470					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5820	1.0179	88.0669	4.6000e- 003		0.4879	0.4879		0.4879	0.4879	0.0000	143.1037	143.1037	0.1346	0.0000	146.4674
Total	34.7771	1.0179	88.0669	4.6000e- 003		0.4879	0.4879	= =	0.4879	0.4879	0.0000	143.1037	143.1037	0.1346	0.0000	146.4674

#### 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
, i	1,771.975 7	5.5062	0.4171	2,033.921 3
ı .	1,865.237 5	5.7960	0.4390	2,140.969 8

## 7.2 Water by Land Use

**Unmitigated** 

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Apartments Mid Rise		1,865.237 5	5.7960	0.4390	2,140.969 8
Total		1,865.237 5	5.7960	0.4390	2,140.969 8

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#### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Apartments Mid Rise	542.088 / 341.751	1,771.975 7	5.5062	0.4171	2,033.921 3
Total		1,771.975 7	5.5062	0.4171	2,033.921 3

#### 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e			
	MT/yr						
Mitigated	i i	48.3298	0.0000	2,026.029 3			
Unmitigated		48.3298	0.0000	2,026.029 3			

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## 8.2 Waste by Land Use Unitigated

2,026.029 3	0000.0	8628.84	9 <b>287.</b> 718		Total
2,026.029 8	0000.0	8628.84	9387.718		Apartments Mid size
	/۸۱		snot	esU bnsJ	
COSe	NSO	CH4	Total CO2	Waste Disposed	

## Mitigated

2,026.029 3	0000.0	8628.84	9 <b>287.</b> 718		IstoT
2,026.029 £	0000.0	8628.84	9387.718	4028.68	Apartments Mid Rise
	//\٢	TM		snot	esU bnsJ
COSe	NSO	CH4	Total CO2	Waste Disposed	

## 9.0 Operational Offroad

Fuel Type	Load Factor	Horse Power	Days/Year	Hours/Day	Mumber	Ednibment Iype
ouvit louid	load Easter	Horse Dower	100V/2VC()	Yed/salled	γοφωτηγ	Pay Type

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Beverly Hills 2021 to 2029 HE - Los Angeles-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

## **10.0 Stationary Equipment**

#### **Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Boilers						

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

#### **User Defined Equipment**

Equipment Type	Number

## 11.0 Vegetation

## **Attachment 8: Noise Technical Study**



16755 Von Karman Avenue Suite 200 Irvine, CA 92606 949.753.7001 phone 949.753.7002 fax

## technical memorandum

date September 2, 2021

to Chloe Chen, Associate Planner

City of Beverly Hills

cc Tamseel Mir, ESA

from Tony Chung, Principal Acoustical Engineer, ESA

tchung@esassoc.com

949-678-3300

subject City of Beverly Hills Housing Element Update Noise Impact Analysis

#### Introduction

The City's current 2014-2021 Housing Element of the General Plan was approved in 2013 and outlines the City's housing goals from 2014 through 2021. The State of California requires that each jurisdiction's housing element be updated every eight (8) years and certified by the State. The City is currently updating its Housing Element for the 2021-2029 period. A major component of this update is the 6th Cycle Regional Housing Needs Assessment ("RHNA"), in which the State estimates each region's housing needs for all income groups.

• ESA noise specialist, Tony Chung, has reviewed the draft 2021-2029 Housing Element Update (the Project) included in the Mixed-Use Overlay Zone (see Ordinance No. 20-O-2825) to allow housing units in some commercial areas of the City. ESA conducted a noise impact analysis comparing the following scenario, and feasible mitigation measures are identified for potentially significant impacts: Comparing potential roadway traffic noise levels between the existing conditions and implementation of the Draft 2021-2029 Housing Element Update conditions.

For informational purposes, ESA also conducted a noise analysis for the following scenario that compares buildout under the existing 2014-2021 Housing Element and the existing conditions.

 Comparing potential roadway traffic noise levels between the existing conditions and full buildout of the current 2014-2019 Housing Element conditions.

This memorandum summarizes ESA's analysis and findings associated with the potential noise impacts that would result from the Draft 2021-2029 Housing Element Update project.

#### **Project Description**

The City is currently updating its Housing Element for the 2021-2029 period. The purpose of the Housing Element is to identify and analyze potential sites for residential development and to establish housing programs to accommodate the City's share of future housing needs for all income groups as identified through the RHNA process. Based on the City's draft General Plan 2021-2029 Housing Element, the City's residential sites inventory is comprised of three components: 1) approved projects; 2) underutilized (non-vacant) sites with potential for additional residential development or redevelopment; and 3) potential accessory dwelling units (ADUs). Potential sites for residential development during the 2021-2029 planning period include 490 units through approved projects, 8,686 units through underutilized sites, and 72 potential accessory dwelling units (ADUs), for a total of 9,248 units. Excluding the approved projects, the proposed 2021-2029 Housing Element has the potential to provide a total of 8,758 residential units.

Underutilized sites have potential for additional residential development or redevelopment. The most significant opportunities for additional housing development are within the Mixed Use (MU) Overlay Zone. In 2020, the City adopted a Mixed Use Overlay Zone that encompasses over 109 acres. The overlay zone adds mixed use developments as a permitted use within the designated areas. Maximum residential density within the overlay zone is 79 units per acre and height limits range from three to five stories depending on location. Parcel-level data for the MU Overlay area shows that the MU Overlay Zone could accommodate more than 8,600 new housing units. This total does not include density bonus units that would be allowed when affordable units are provided.

#### **Existing Conditions**

### 2014-2021 Housing Element

Based on the City of Beverly Hills General Plan 2014-2021 Housing Element, the realistic unit potential for the current adopted Housing Element (assuming 85% of Zoning Density) is 725 units. The Institute of Transportation Engineers (ITE) 10<sup>th</sup> Edition ITE trip generation rate for mid-rise (affordable) residential buildings (Category 221) is 5.44 trips per day per dwelling unit. Based on this trip rate, the current adopted Housing Element potential of 725 units would generate approximately 3,944 daily trips.

## Mixed Use Overlay Zone

The City Council recently adopted a Mixed Use Overlay Zone (see Ordinance No. 20-O-2825) to allow housing units in some commercial areas of the City. The Mixed Use Overlay Zone regulations may be found in Article 18.3 of Chapter 3, Title 10 of the Beverly Hills Municipal Code (BHMC).

Mixed use projects are developments with both commercial uses and residential units. They are now allowed in the Mixed Use Overlay Zone, which has been applied to the following commercial areas of the City:

- Properties fronting on Wilshire Boulevard between San Vicente Boulevard to the east and Rexford Drive to the west;
- Properties located on the southern side of Wilshire Boulevard between Rexford Drive to the east and South Santa Monica Boulevard to the west;
- Properties fronting on La Cienega Boulevard between the northern and southern borders of the City;
- Properties fronting Robertson Boulevard between the northern and southern borders of the City;
- Properties fronting on Olympic Boulevard located between the eastern boundary of the City and Rexford Drive to the west;
- Properties fronting on South Doheny Drive between Wilshire Boulevard and La Cienega Boulevard;

- Properties fronting on Santa Monica Boulevard (south roadway) between Wilshire Boulevard to the east and South Moreno Drive to the west; and
- Properties fronting on South Beverly Drive between Wilshire Boulevard to the north and Charleville Boulevard to the south.

Height limits in the Mixed Use Overlay Zone range from 3 to 5 stories. The following summarizes the Use and Floor Area Standards in Mixed Use Projects:

Commercial Uses: Commercial development on any parcel is limited by a 2:1 Floor Area Ratio (FAR). This means two times the square footage of the site may be commercial floor area (if a parcel is 10,000 square feet, then 20,000 square feet of commercial floor area is allowed). Please note that this limitation only applies to the commercial component of a mixed use development, and additional floor area may be included if dedicated to residential uses.

Restricted Uses: Medical and entertainment uses are not allowed in mixed use developments. Medical uses are defined in BHMC §10- 3-100. Entertainment uses include things like cabarets and nightclubs.

**Residential Uses:** One residential unit may be constructed on a site for each 550 square feet of site area, and the number of units can be rounded up at 0.76. For example, if a site is 10,000 square feet, then 18 residential units are allowed on the site (10,000/550 = 18.18), which rounds down to 18). There is no maximum floor area ratio (FAR) restriction for residential uses in a mixed use development.

Location Restrictions: The ground floor of a mixed use development must contain commercial uses in those areas directly adjacent to the public street(s). Residential uses shall not be permitted within the first 40 feet of depth from any street-facing property line of the ground floor.

Underutilized sites have potential for additional residential development or redevelopment. The most significant opportunities for additional housing development are within the Mixed Use (MU) Overlay Zone. In 2020, the City adopted a Mixed Use Overlay Zone that encompasses over 109 acres. The overlay zone adds mixed use developments as a permitted use within the designated areas. Maximum residential density within the overlay zone is 79 units per acre and height limits range from three to five stories depending on location. A summary of the mixed use regulations is posted on the City's website to assist property owners, developers and other interested parties in understanding the new mixed use regulations. The underlying zoning designation for the MU Overlay area is Commercial, which does not allow residential use. Therefore, the MU Overlay creates significant incentives for new residential development. Parcel-level data for the MU Overlay area shows that the MU Overlay Zone could accommodate more than 8,600 new housing units. This total does not include density bonus units that would be allowed when affordable units are provided consistent with the City's Inclusionary Housing Ordinance.

#### Existing Traffic Noise within the Mixed Use Overlay Zone

The Draft 2021-2029 Housing Element envisions up to 8,686 new residential units to be located within the Mixed Use Overlay Zone. While the Draft 2021-2029 Housing Element also envisions 72 potential accessory dwelling units (ADUs) located outside of the Mixed Use Overlay Zone, the overwhelming majority of new residential uses under the Draft 2021-2029 Housing Element would occur within the Mixed Use Overlay Zone. For the purposes

of this analysis, existing traffic noise levels were estimated for the following roadway segments within the City's Mixed Use Overlay Zone based on the following existing traffic volumes: 1

- Santa Monica Boulevard, 14,100 average daily trips (ADT) eastbound (EB) and 16,500 ADT westbound (WB), total 30,600 ADT
- Wilshire Boulevard, 20,400 ADT EB, 18,100 ADT WB, total 38,500 ADT
- Olympic Boulevard, 21,800 EB, 24,100 WB, total 45,900 ADT
- San Vicente Boulevard, not available
- La Cienega Boulevard, 24,600 ADT southbound (SB), 24,300 ADT northbound (NB), total 48,900 ADT
- Robertson Boulevard, 12,400 ADT NB, 12,600 ADT SB, total 25,000 ADT
- Doheny Drive, 8,300 ADT NB, 8,900 ADT SB, total 17,200 ADT
- S. Beverly Drive, 14,100 ADT EB, 16,500 ADT WB, total 30,600 ADT
- S. Lasky Drive, not available
- Burton Way, and 15,900 ADT WB, 13,100 ADT EB, total 29,000 ADT
- Rexford Drive, not available

The above 24-hour traffic volumes on major streets in the City of Beverly Hills were taken from the City's Traffic Engineering Team website, and were last updated in December 2019. The majority, if not all, of the traffic volumes were collected before the Covid-19 Pandemic affected southern California. Therefore, these average daily traffic (ADT) volumes reflect the normal traffic flow without the pandemic influence, and should be considered a typical baseline condition for these streets.

The Draft 2021-2029 Housing Element Update identifies potential residential units primarily within the Mixed Use Overlap Zone. Therefore, any increases to vehicular traffic outside of the Mixed Use Overlay Zone would be relatively small after these vehicles leave the Mixed Use Overlay Zone and distributed in many directions. As a rule of thumb, it takes a doubling of the vehicle volume to increase the traffic noise level by 3 dBA. The vehicles exiting and traveling outside of the Mixed Use Overlay Zone would be just a percentage of the existing traffic volumes for the streets surrounding the Mixed Use Overlay Zone, and would not result in an increase in the traffic noise level outside of the Mixed Use Overlay Zone..

Average daily traffic volumes along these roadway segments within the Mixed Use Overlay Zone range from 25,000 ADT along Robertson Boulevard to 48,900 ADT along La Cienega Boulevard. The community noise equivalent level (CNEL) attributed to existing traffic volumes on local roadways were estimated using a spreadsheet model developed based on the methodologies provided in FHWA Traffic Noise Model (TNM) Technical Manual.<sup>2</sup> The Caltrans Technical Noise Supplement (TeNS) document states that the peak hour traffic noise level would be equivalent to the CNEL level based on the assumptions of (1) the peak hour traffic volume

FHWA, Federal Highway Administration's Traffic Noise Model, Version 1.0 Technical Manual (February 1998). https://www.fhwa.dot.gov/environment/noise/traffic noise model/old versions/tnm version 10/tech manual/index.cfm.

4

City of Beverly Hills, 2019. Traffic Engineering. Available: http://www.beverlyhills.org/departments/publicworks/transportation/trafficengineering/web.jsp. Accessed August 2021.

would be 10 percent of the average daily traffic volume, and (2) the split of daytime and nighttime average daily traffic volume is 85/15 percent.<sup>3</sup> **Table 1** summarizes the existing traffic noise levels.

TABLE 1 **EXISTING BASELINE ROADWAY NOISE LEVELS** 

	Traffic Noise Levels (dBA CNEL)
Roadway Segment	Existing (2021) <sup>a</sup>
Burton Way	80.3
Doheny Drive	78.0
La Cienega Boulevard	82.6
Olympic Boulevard	82.3
Robertson Boulevard	79.7
Santa Monica Boulevard	80.5
South Beverly Drive	80.5
Wilshire Boulevard	81.5
SOURCE: ESA 2021	

NOTES:

Decibel levels were calculated at a distance of 30 feet from the roadway centerline.

#### City of Beverly Hills Municipal Code Noise Standards

The potential residential units identified in the Draft 2021-2029 Housing Element Update would be located primarily along Wilshire Boulevard, Robertson Boulevard, La Cienega Boulevard, Santa Monica Boulevard, San Vicente Boulevard, and Olympic Boulevard. Because some of these street segments already carry relatively high traffic volumes, adding the new daily vehicle trips to these street segments would increase the noise exposure level for land uses along these street segments. The City's White Paper on Noise (Attachment 4 in the Agenda Report for the January 12, 2010 City Council Meeting) states that:

"In Beverly Hills, noise mitigation measures will be applicable only in areas impacted by noise as identified in Figures N1 and N2. As new residential projects are proposed near major roadways or other potential noise sources, future noise levels are evaluated and noise mitigation strategies can include noise insulation and building design for noise reduction. In addition, stationary noise sources such as retail/entertainment establishments can be controlled through site planning and regulation of hours and deliveries within the Zoning Code.

Building interior noise levels can be reduced by protecting the receiver with acoustical structures, enclosures, or construction techniques. Windows and doors are the most important paths for sound to enter a structure. Use of sound insulating doors and double paned windows can provide substantial reductions of interior noise levels. Because these features have little effect in reducing noise when they are left open, installation of air conditioning for adequate ventilation may be required."

Traffic volumes taken from the City's Traffic Engineering Department 24-hour Traffic Flow Data. http://www.beverlyhills.org/departments/publicworks/transportation/trafficengineering/web.jsp

California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013). http://www.dot.ca.gov/hq/env/noise/pub/TeNS Sept 2013B.pdf.

The City of Beverly Hills Municipal Code contains noise regulations and standards (Title 5, Chapter 1) that limit unnecessary, excessive, and annoying noise in the City including noise generated by construction, machinery, motor vehicles, and animals. Within the City of Beverly Hills, it is against the law to operate equipment or perform any outside construction or repair work on any building, structure, pneumatic hammer, derrick, steam or electric hoist, or other construction type devices, between the hours of 6:00 P.M. of one day and 8:00 A.M. of the next day, or at any time on a Sunday or a holiday as enumerated so as to cause discomfort or annoyance in a residential zone, unless beforehand a permit therefore has been obtained. Applications for an afterhours construction permit shall set forth how the public interest will be served by issuing the permit. An afterhours construction permit may be revoked or suspended by the City building official if the City building official determines that activity conducted pursuant to the permit detrimentally affects the public health, safety or welfare. (Ord. 11-O-2613, eff. 10-31-2011; amd. Ord. 20-O-2816, eff. 8-21-2020)

The City noise regulations and standards also limit noise from machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device. In accordance with City standards, it shall be unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five (5) decibels based on a reference sound pressure of 0.0002 microbars, as measured in any octave band center frequency, in cycles per second, as follows: 63, 125, 250, 500, 1,000, 2,000, 4,000, and 8,000 and for the combined frequency bands (all pass). (Ord. 11-O-2613, eff. 10-31-2011)

### **Project Impacts**

#### Thresholds of Significance

In the City of Beverly Hills, a project would have a significant impact if the project would result in:

**Threshold NOI-1:** Generation of a substantial temporary or permanent increase in ambient noise levels

in the vicinity of the project in excess of standards established in the local general

plan or noise ordinance, or applicable standards of other agencies;

**Threshold NOI-2:** Generation of excessive groundborne vibration or groundborne noise levels;

**Threshold NOI-3:** For a project located within the vicinity of a private airstrip or an airport land use

plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the

project area to excessive noise levels;

#### Thresholds NOI-1

Based on the City's draft General Plan 2021-2029 Housing Element, the City's residential sites inventory is comprised of three components: 1) approved projects; 2) underutilized (non-vacant) sites with potential for additional residential development or redevelopment; and 3) potential accessory dwelling units (ADUs). Potential sites for residential development during the 2021-2029 planning period include 490 units through approved projects, 8,686 units through underutilized sites, and 72 potential accessory dwelling units (ADUs), for a total of 9,248 units. Excluding the approved projects, the proposed 2021-2029 Housing Element has the potential to provide a total of 8,758 residential units.

The Institute of Transportation Engineers (ITE) 10<sup>th</sup> Edition ITE trip generation rate for mid-rise market-rate multifamily residential buildings (Category 221) is 5.44 trips per day per dwelling unit. Based on this trip rate, the

potential 8,686 units associated with the Draft 2021-2029 Housing Element Update would generate a total of approximately 47,252 daily trips. The 72 potential accessory dwelling units would generate a total of approximately 392 daily trips. Thus, the potential 8,758 residential units that could be developed under the Draft 2021-2029 Housing Element would generate a total of approximately 47,644 daily trips. However, as stated above, this analysis focused on the approximately 47,252 daily trips that would occur within the Mixed Use Overlap Zone under the Draft 2021-2029 Housing Element Update.

# **Construction Noise Impact**

Implementation of the Draft 2021-2029 Housing Element Update would result in construction activity that could adversely affect existing land uses adjacent to the mixed use sites. As discussed above, the City of Beverly Hills Municipal Code contains noise regulations and standards (Chapter 1) that limit unnecessary, excessive, and annoying noise in the City including noise generated by construction, machinery, motor vehicles, and animals. Specifically, the noise regulations and standards do not permit a person to operate equipment or perform any outside construction or repair work on any building, structure, pneumatic hammer, derrick, steam or electric hoist, or other construction type devices, between the hours of 6:00 P.M. of one day and 8:00 A.M. of the next day, or at any time on any public holiday so as to cause discomfort or annoyance in a residential zone, unless beforehand a permit therefore has been obtained. The noise regulations and standards are designed to allow construction activities and the use of construction equipment during daytime hours when people are normally awake and less sensitive to potentially offending noise sources and prohibit such activities and equipment during late evening and nighttime hours or during Sundays or holidays when people are normally asleep or resting and more sensitive to potentially offending noise sources. The City allows applications for an afterhours construction permits, but requires that the applications set forth how the public interest will be served by issuing the permit and such permits may be revoked or suspended by the City building official if the City building official determines that activity conducted pursuant to the permit detrimentally affects the public health, safety or welfare. Compliance with the City of Beverly Hills Municipal Code noise regulations and standards is required and enforceable through the City building official and would be protective of potentially offending noise from construction activities associated with buildout of the proposed residential units under the Draft 2021-2029 Housing Element Update.

As there are no specific projects currently approved or proposed under the Proposed Housing Element and no knowledge as to timing of construction, potential location or the exact nature of future projects, analysis at the project level would be speculative. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project specifics. Through each project's individual environmental review process, potential impacts would be identified and compared against relevant thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

## **Operational On-site Noise Impact**

Operation of buildout of the new residential uses under the Draft 2021-2029 Housing Element Update would introduce new mechanical equipment to development areas. The equipment would consist of residential air conditioning apparatus, or similar mechanical devices, which may generate noise. As discussed previously, the City noise regulations and standards prohibit the operation of machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device such that it would create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five (5) decibels. Compliance with the City of Beverly Hills Municipal Code noise regulations and standards is required and enforceable

through the City building official and would be protective of potentially offending noise from mechanical equipment associated with buildout of the proposed residential units under the Draft 2021-2029 Housing Element Update.

As there are no specific projects currently approved or proposed under the Proposed Housing Element and no knowledge as to potential location or the exact nature of future projects, analysis at the project level would be speculative. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project specifics. Through each project's individual environmental review process, potential impacts would be identified and compared against relevant thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

# **Operational Off-site Noise Impact**

Given the size of the Mixed Use Overlay Zone (over 109 acres of area), it is not likely that all 47,252 daily vehicle trips would travel on one street on a daily basis. Assuming up to one quarter of the total daily vehicle trips associated with these new residential units would travel on any of the six major street segments within the Mixed Use Overlay Zone that the City routinely collects traffic flow data,<sup>4</sup> there could be a total of 11,813 daily trips added to one of these six street segments. Among these street segments, Robertson Boulevard currently carries the lowest volume, 25,000 ADT.

**Table 2** lists the existing baseline plus Housing Element Update project traffic noise levels. Adding the Project traffic to the existing conditions would result in changes in the traffic noise levels from less than 1 dBA compared to the corresponding baseline traffic noise level along La Cienega Boulevard to 2.3 dBA increase along Doheny Drive. The existing baseline plus project traffic noise levels along these roadway segments would have noise level changes less than the 3 dBA increase normally considered to have potentially significant noise impact and would not have any project-related traffic noise impacts. Therefore, no significant traffic noise impact under the existing plus project scenario would occur from the implementation of the Project.

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Traffic volumes taken from the City's Traffic Engineering Department 24-hour Traffic Flow Data, December 2019. http://www.beverlyhills.org/departments/publicworks/transportation/trafficengineering/web.jsp.

TABLE 2
EXISTING ROADWAY WITH PROJECT NOISE LEVELS

	Tr			
Roadway Segment	Existing (2021) <sup>a</sup>	Existing (2021) with Project	Increase over Existing	Significant Increase? <sup>b</sup>
Burton Way	80.3	81.8	1.5	No
Doheny Drive	78.0	80.3	2.3	No
La Cienega Boulevard	82.6	83.5	0.9	No
Olympic Boulevard	82.3	83.3	1.0	No
Robertson Boulevard	79.7	81.3	1.6	No
Santa Monica Boulevard	80.5	82.0	1.5	No
South Beverly Drive	80.5	82.0	1.5	No
Wilshire Boulevard	81.5	82.7	1.2	No

SOURCE: ESA 2021

NOTES:

Decibel levels were calculated at a distance of 30 feet from the roadway centerline.

# **On-Site Land Use General Plan Compliance**

The potential residential units identified in the Draft 2021-2029 Housing Element Update would be located primarily along Wilshire Boulevard, Robertson Boulevard, La Cienega Boulevard, Santa Monica Boulevard, San Vicente Boulevard, and Olympic Boulevard. Because some of these street segments already carry relatively high traffic volumes, adding the new daily vehicle trips to these street segments would increase the noise exposure level for land uses along these street segments. The City's White Paper on Noise (Attachment 4 in the Agenda Report for the January 12, 2010 City Council Meeting) states that:

"In Beverly Hills, noise mitigation measures will be applicable only in areas impacted by noise as identified in Figures N1 and N2. As new residential projects are proposed near major roadways or other potential noise sources, future noise levels are evaluated and noise mitigation strategies can include noise insulation and building design for noise reduction. In addition, stationary noise sources such as retail/entertainment establishments can be controlled through site planning and regulation of hours and deliveries within the Zoning Code.

Building interior noise levels can be reduced by protecting the receiver with acoustical structures, enclosures, or construction techniques. Windows and doors are the most important paths for sound to enter a structure. Use of sound insulating doors and double paned windows can provide substantial reductions of interior noise levels. Because these features have little effect in reducing noise when they are left open, installation of air conditioning for adequate ventilation may be required."

The City of Beverly Hills adopted the Land Use Noise Compatibility Matrix by the Office of Noise Control, California Department of Health, in which it states that, for multifamily residential uses, the Normally Acceptable Community Noise Equivalent Level (CNEL) between 50 and 65 dBA, Conditionally Acceptable between 60 and 70 dBA, Normally Unacceptable between 70 and 75 dBA, and Clearly Unacceptable between 70 and 85 dBA. Conditionally acceptable means new construction or development should be undertaken only after a detailed

<sup>&</sup>lt;sup>a</sup> Traffic volumes taken from the City's Traffic Engineering Department 24-hour Traffic Flow Data.

b Threshold used for significant increase is 3 dBA.

analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Normally unacceptable means that 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 included in the design.

California Code of Regulations (CCR) Title 24 establishes the California Building Code (CBC). The most recent building standard adopted by the legislature and used throughout the state is the 2016 version, which took effect on January 1, 2017. The State of California's noise insulation standards are codified in the CBC (Title 24, Part 2, Chapter 12). These noise standards are for new construction in California for the purposes of interior compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residences, schools, or hospitals, are near major transportation noises, and where such noise sources create an exterior noise level of 60 dBA CNEL, or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Based on the U.S. EPA Levels Document, standard buildings in warm climate areas would provide a 24 dBA exterior-to-interior noise attenuation with windows and doors closed, and 12 dBA noise attenuation with windows open. In order to meet the 45 dBA CNEL interior noise standard for residential uses, residences proposed within the impact zone of 57 dBA CNEL should be equipped with mechanical ventilation (e.g., air conditioning) to ensure that windows can remain closed for prolonged periods of time. For residences proposed within the impacts zone of 69 dBA CNEL, building façade upgrades (e.g., windows upgrades with sound transmission class ratings higher than the STC-28 standard building design would provide) would be required.

New residential units within the Mixed Use Overlay Zone would be potentially exposed to traffic noise levels in the Conditionally Acceptable or Normally Unacceptable zones, with traffic noise levels ranging from 60 to 75 dBA CNEL. All proposed new multifamily residential uses in the City's Mixed Use Overly Zone will be required to prepare a detailed noise impact analysis as a part of their environmental review process. Design standards for proposed new multifamily residential uses within the City's Mixed Use Overlay Zone may include but are not limited to:

- 1. Dwelling units that would be exposed to traffic noise levels exceeding 57 dBA CNEL: A form of fresh air supply, such as air conditioning systems, will be required.
- 2. Dwelling units that would be exposed to traffic noise levels exceeding 65 dBA CNEL: Outdoor living areas such as balcony or deck on the side of the buildings exposed to high traffic noise should not be allowed unless noise mitigation measures, such as barrier walls with a minimum height of 5 feet with adequate materials (CMU, wood, Plexiglas) with no holes or gaps, along the perimeter of the outdoor living areas are included.
- 3. Dwelling units that would be exposed to traffic noise levels exceeding 69 dBA CNEL: Windows associated with bedrooms and living/family rooms on the side of the buildings exposed to high traffic noise will be required to have building façade upgrades, such as using windows with Sound Transmission Class (STC) ratings higher than standard building practice (up to STC-28).

In addition, due to the nature of mixed use overlay, some residences may be exposed to noise sources from the operations of the commercial uses nearby or down below. Such noise sources include loading/unloading activity and outdoor mechanical equipment and the following design standards are recommended.

- 1. Loading areas associated with commercial uses within the mixed use overlay zone should be placed away from outdoor living areas associated with residential uses. Noise barriers with sufficient height to block the line-of-sight between the loading areas and outdoor living areas in proximity of the loading areas will be required.
- 2. Stationary outdoor mechanical equipment should be placed away from residential outdoor living areas or be enclosed with a structure to minimize the potential noise impacts.
- 3. All noise sources shall follow the City's Municipal Code noise control ordinance requirements.

With the implementation of the design standards listed above, new residential uses included as part of the proposed Housing Element Update would comply with the requirements of the General Plan Noise Element and Municipal Code noise ordinance. The proposed Housing Element Update would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The impact would be less than significant.

#### Thresholds NOI-2

# **Construction Vibration Impact**

The City of Beverly Hills does not have any vibration regulations or standards that limit unnecessary, excessive, and annoying vibration in the City.

The criteria for environmental impact from groundborne vibration are based on the maximum levels for a single event. **Table 3** lists the potential vibration damage criteria associated with construction activities, as suggested in the Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment* (FTA 2006).

FTA guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 inch/sec in RMS) (FTA 2006) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 inch/sec in RMS). The RMS values for building damage thresholds referenced above are shown in **Table 4**, which is adopted by the California Department of Transportation (Caltrans) in its *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013).

TABLE 3
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (inch/sec)	Approximate L <sub>v</sub> <sup>a</sup>
Reinforced-concrete, steel or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

SOURCE: Federal Transit Administration. Table 12-3, *Transit Noise and Vibration Impact Assessment* (2006). NOTES:

PPV = peak particle velocity; L<sub>V</sub> = velocity in decibels; inch/sec = inches per second

TABLE 4
GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

	Maximum PPV (inch/sec)					
Structure and Condition	Transient Sources <sup>a</sup>	Continuous/Frequent Intermittent Sources <sup>b</sup>				
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08				
Fragile buildings	0.20	0.10				
Historic and some old buildings	0.50	0.25				
Older residential structures	0.50	0.30				
New residential structures	1.00	0.50				
Modern industrial/commercial buildings	2.00	0.50				

SOURCE: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual* (2013), Table 19. NOTES:

PPV = peak particle velocity; inch/sec = inches per second

Based on Table 8-3 in the FTA's *Transit Noise and Vibration Impact Assessment* (FTA 2006), interpretation of vibration criteria for detailed analysis is 78 VdB for residential uses during daytime hours. During nighttime hours, the vibration criterion is 72 VdB. For office and office buildings, the FTA guidelines suggest that a vibration level of 84 VdB should be used for detailed analysis.

Construction of potential residential units due to implementation of the Draft 2021-2029 Housing Element Update will be required to avoid causing structural damage to any buildings adjacent to the construction sites. Due to the proximity of potential sites within the Mixed Use Overlay Zone, there is the potential for structural damage impacts during construction activity. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project specifics. Through each project's individual environmental review process, potential structural damage impacts would be identified and compared against relevant thresholds (such as those presented in Table 3 and Table 4). Individual projects that exceed the thresholds would normally be considered significant and require mitigation to avoid structural damage for adjacent buildings.

a Root-mean-square velocity in decibels (VdB) re 1 microinch per second.

<sup>&</sup>lt;sup>a</sup> Transient sources create a single, isolated vibration event, such as blasting or drop balls.

b Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

# **Operational Off-site Vibration Impact**

Operations of potential residential units due to implementation of the Housing Element Update would not result in any significant ground-borne vibration that would affect any off-site land uses. No mitigation measures are required.

With the implementation of the design standards listed above, new residential uses included as part of the proposed Housing Element Update would comply with the requirements of the General Plan Noise Element and Municipal Code noise ordinance. The proposed Housing Element Update would not result in the generation of excessive groundborne vibration or groundborne noise levels. The impact would be less than significant.

## Thresholds NOI-3

Buildout of the residential units under the Draft 2021-2029 Housing Element Update would occur within the Mixed Use Overlay Zone, which is not 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. Therefore, the project would not expose people residing or working in the project area to excessive noise levels. No significant impact would occur, and no mitigation measures are required.

New residential uses included as part of the proposed Housing Element Update would not expose people residing or working in the project area to excessive noise levels. The impact would be less than significant.

# Plan-to-Plan Analysis

For informational purposes, a noise analysis that compares buildout under the existing 2014-2021 Housing Element to buildout of the Draft 2021-2029 Housing Element Update is provided herein. To compare the effects of the proposed 2021-2029 Housing Element Update with the buildout of the current Housing Element, the analysis will focus on changes within the Mixed Use Overlay Zone from buildout of the 2014-2021 Housing Element and buildout of the Draft 2021-2029 Housing Element Update. The Draft 2021-2029 Housing Element Update identifies potential residential units primarily within the Mixed Use Overlap Zone. Therefore, any increases to vehicular traffic outside of the Mixed Use Overlay Zone by the 2014-2021 Housing Element Buildout condition would be relatively small after these vehicles leave the Mixed Use Overlay Zone and distributed in many directions. As a rule of thumb, it takes a doubling of the vehicle volume to increase the traffic noise level by 3 dBA. The vehicles exiting and traveling outside of the Mixed Use Overlay Zone would be just a percentage of the existing traffic volumes for the streets surrounding the Mixed Use Overlay Zone, and would not result in an increase in the traffic noise level outside of the Mixed Use Overlay Zone.

Streets within the City's Mixed Use Overlay Zone include the following roadway segments:5

- Santa Monica Boulevard, 14,100 ADT eastbound (EB) and 16,500 ADT westbound (WB), total 30,600 ADT
- Wilshire Boulevard, 20,400 ADT EB, 18,100 ADT WB, total 38,500 ADT

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City of Beverly Hills, 2019. Traffic Engineering. Available: http://www.beverlyhills.org/departments/publicworks/transportation/trafficengineering/web.jsp. Accessed August 2021.

- Olympic Boulevard, 21,800 EB, 24,100 WB, total 45,900 ADT
- San Vicente Boulevard, not available
- La Cienega Boulevard, 24,600 ADT southbound (SB), 24,300 ADT northbound (NB), total 48,900 ADT
- Robertson Boulevard, 12,400 ADT NB, 12,600 ADT SB, total 25,000 ADT
- Doheny Drive, 8,300 ADT NB, 8,900 ADT SB, total 17,200 ADT
- S. Beverly Drive, 14,100 ADT EB, 16,500 ADT WB, total 30,600 ADT
- S. Lasky Drive, not available
- Burton Way, and 15,900 ADT WB, 13,100 ADT EB, total 29,000 ADT
- Rexford Drive, not available

These traffic volumes were taken from the City's Traffic Engineering Department 24-hour Traffic Flow Data. Average daily traffic volumes along these roadway segments range from 25,000 ADT along Robertson Boulevard to 48,900 ADT along La Cienega Boulevard.

Existing and future community noise equivalent level (CNEL), the noise levels attributed to existing and future traffic volumes on local roadways, were estimated using a spreadsheet model developed based on the methodologies provided in FHWA Traffic Noise Model (TNM) Technical Manual.<sup>6</sup> In addition, the Caltrans Technical Noise Supplement (TeNS) document states that the peak hour traffic noise level would be equivalent to the CNEL level based on the assumptions of (1) the peak hour traffic volume would be 10 percent of the average daily traffic volume, and (2) the split of daytime and nighttime average daily traffic volume is 85/15 percent.<sup>7</sup>

The existing 2014-2021 adopted Housing Element potential of 725 units would generate 3,944 daily trips. Because these potential sites are spread all over the City, it is not practical or reasonable to allocate all vehicle trips onto any one roadway segment. It is assumed that, as a worst-case scenario, up to one quarter of these new daily trips would travel on all roadway segments analyzed in this noise impact analysis. Therefore, a total of 986 daily trips would be added to every roadway segment analyzed. The traffic noise from buildout under the Draft 2021-2029 Housing Element Update were estimated as discussed previously and shown in Table 1 above.

Table 5 summarizes the traffic noise levels for the following conditions:

- Existing baseline;
- Existing plus buildout of the 2014-2021 Housing Element; and
- Existing plus buildout of the Draft 2021-2029 Housing Element Update (refer to Table 1).

Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a

FHWA, Federal Highway Administration's Traffic Noise Model, Version 1.0 Technical Manual (February 1998). https://www.fhwa.dot.gov/environment/noise/traffic noise model/old versions/tnm version 10/tech manual/index.cfm.

California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013). http://www.dot.ca.gov/hq/env/noise/pub/TeNS\_Sept\_2013B.pdf.

given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and 10 sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.

Traffic noise level increases would be less than 3 dBA on all roadway segments analyzed. However, as shown, the noise level increases would be greater with buildout of the Draft 2021-2029 Housing Element Update compared to buildout of the 2014-2021 Housing Element. This is an expected result as the Housing Element Update proposes substantially more housing units compared to the 2014-2021 Housing Element to achieve the 6th Cycle RHNA targets.

TABLE 5

EXISTING ROADWAY WITH HOUSING ELEMENT BUILDOUT NOISE LEVELS

	Traffic Noise Levels (dBA CNEL)									
Roadway Segment	Existing (2021) <sup>a</sup>	Existing plus 2014-2021 Housing Element Buildout	Increase over Existing	Existing plus Draft 2021-2029 Housing Element Update	Increase over Existing					
Burton Way	80.3	80.5	0.2	81.8	1.5					
Doheny Drive	78.0	78.3	0.3	80.3	2.3					
La Cienega Boulevard	82.6	82.7	0.1	83.5	0.9					
Olympic Boulevard	82.3	82.4	0.1	83.3	1.0					
Robertson Boulevard	79.7	79.8	0.1	81.3	1.6					
Santa Monica Boulevard	80.5	80.7	0.2	82.0	1.5					
South Beverly Drive	80.5	80.7	0.2	82.0	1.5					
Wilshire Boulevard	81.5	81.6	0.1	82.7	1.2					

SOURCE: ESA 2021

NOTES:

Decibel levels were calculated at a distance of 30 feet from the roadway centerline.

#### Conclusion

Implementation of the Draft 2021-2029 Housing Element Update would result in more new residential units (8,758 units versus 725 units) than the buildout of current Housing Element. This in turn would result in more vehicular trips on the City's streets, especially those in and around the Mixed Use Overlay Zone.

Construction of the new residential units would potentially affect adjacent existing land uses. Compliance with the City's Municipal Code during construction activity will be required for both future projects implementing the current Housing Element Buildout and the proposed 2021-2029 Housing Element. Similarly, depending on the location of these new residential sites, construction vibration impacts could occur. Each future project developed under the Proposed Housing Element would be required to conduct their own CEQA analysis and would determine significance based on the individual project specifics. Through each project's individual environmental

Traffic volumes taken from the City's Traffic Engineering Department 24-hour Traffic Flow Data, December 2019. http://www.beverlyhills.org/departments/publicworks/transportation/trafficengineering/web.jsp

b Threshold used for significant increase is 3 dBA.

review process, potential impacts would be identified and compared against relevant thresholds. Individual projects that exceed the thresholds would normally be considered significant and require mitigation.

Implementation of both the Draft 2021-2029 Housing Element Update and the proposed Housing Element Update would not result in significant traffic noise impacts on off-site land uses. Although implementation of the proposed Housing Element Update project would result in relatively higher traffic noise level increases over those by the implementation of the current Housing Element Buildout, both ranges of increases on traffic noise level would be less than 3 dBA, a threshold considered to be perceptible by the human ear and potentially significant change. In addition, implementation of the Mixed Use Overlay Zone under the Housing Element Update would reduce the overall vehicle miles traveled (VMT) in the City, due to these new residential uses being close to existing transit system and the mixed uses nature within the Overlay Zone. No mitigation measures will be required. Similarly, no vibration impact would occur with the implementation of both the current Housing Element and the proposed Housing Element Update. No mitigation will be required.

Depending on the locations of future residential sites under implementation of both the current Housing Element and the proposed Housing Element Update project, future residential units would potentially be exposed to significant traffic noise impacts. Implementation of recommended design standards may be required.

The entire City is not 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. Therefore, both buildout of the current Housing Element and implementation of the proposed Housing Element Update would not expose people residing or working in the project area to excessive noise levels. No significant impact would occur, and no mitigation measures are required.

Attachments: Traffic noise modeling printouts

#### **References:**

California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual*, 2013.

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (September 2013). http://www.dot.ca.gov/hq/env/noise/pub/TeNS\_Sept\_2013B.pdf.
California Department of Health, Office of Noise Control, Land Use Noise Compatibility Matrix,

California Code of Regulations (CCR) Title 24, California Building Code (CBC). Title 24, Part 2, Chapter 12. January 1, 2017.

City of Beverly Hills General Plan 2014-2021 Housing Element, 2013.

City of Beverly Hills, Municipal Code, January 2010.

City of Beverly Hills Ordinance No. 20-O-2825, Mixed Use Overlay Zone, 2020.

City of Beverly Hills, Traffic Engineering Department, 24-hour Traffic Flow Data 2020.

City of Beverly Hills, White Paper on Noise, Attachment 4 in the Agenda Report for the January 12, 2010 City Council Meeting.

FHWA, Federal Highway Administration's Traffic Noise Model, Version 1.0 Technical Manual (February 1998). https://www.fhwa.dot.gov/environment/noise/traffic\_noise\_model/old\_versions/tnm\_version\_10/tech\_manual/ind ex.cfm.

Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment (FTA 2006).

The Institute of Transportation Engineers (ITE), ITE Trip Generate Rate, 10<sup>th</sup> Edition.

U.S. EPA, Protective Noise Levels, Condensed Version of EPA Levels Document, November 1978.

# TRAFFIC NOISE MODELING PRINTOUTS

# **EXISTING CONDITIONS**





Project: Beverly Hills Housing Element Update Scenario: Existing

	Roadway	Ground	Distance from Roadway to	Speed (mph)			Peak	Hour Vo	lume	Peak Hour Noise Level	Noise Level
		Туре	Receiver (feet)	Auto	MT	HT	Auto	MT	HT	(Leq(h) dBA)	GBA CNEL
Burton Way		Hard	30	35	35	30	2900	2813	58	80.0	80.3
Doheny Drive		Hard	30	35	35	30	1720	1668	34	77.7	78.0
La Cienega Boulevard		Hard	30	35	35	30	4890	4743	98	82.3	82.6
Olympic Boulevard		Hard	30	35	35	30	4590	4452	92	82.0	82.3
Robertson Boulevard		Hard	30	35	35	30	2500	2425	50	79.4	79.7
Santa Monica Boulevard		Hard	30	35	35	30	3060	2968	61	80.2	80.5
South Beverly Drive		Hard	30	35	35	30	3060	2968	61	80.2	80.5
Wilshire Boulevard		Hard	30	35	35	30	3850	3735	77	81.2	81.5

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

# **EXISTING PLUS CURRENT HOUSING ELEMENT BUILDOUT CONDITIONS**





Project: Beverly Hills Housing Element Update Scenario: Existing + Project

	Roadway	Ground	Distance from Roadway to	Sp	eed (mp	h)	Peak Hour Volume			Peak Hour Noise Level	Noise Level
		Туре	Receiver (feet)	Auto	MT	HT	Auto	MT	HT	(Leq(h) dBA)	dBA CNEL
Burton Way		Hard	30	35	35	30	4081	3959	82	81.5	81.8
Doheny Drive		Hard	30	35	35	30	2901	2814	58	80.0	80.3
La Cienega Boulevard		Hard	30	35	35	30	6071	5889	121	83.2	83.5
Olympic Boulevard		Hard	30	35	35	30	5771	5598	115	83.0	83.3
Robertson Boulevard		Hard	30	35	35	30	3681	3571	74	81.0	81.3
Santa Monica Boulevard		Hard	30	35	35	30	4241	4114	85	81.7	82.0
South Beverly Drive		Hard	30	35	35	30	4241	4114	85	81.7	82.0
Wilshire Boulevard		Hard	30	35	35	30	5031	4880	101	82.4	82.7

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

# EXISTING PLUS PROPOSED HOUSING ELEMENT UPDATE MIXED USE OVERLAY ZONE





Project: Beverly Hills Housing Element Update Scenario: Existing Housing Element Buildout

	Roadway	Ground	Distance from Roadway to	Speed (mph)			Peak	Hour Vo	olume	Peak Hour Noise Level	Noise Level
		Туре	Receiver (feet)	Auto	MT	HT	Auto	MT	HT	(Leq(h) dBA)	dBA CNEL
Burton Way		Hard	30	35	35	30	2999	2909	60	80.2	80.5
Doheny Drive		Hard	30	35	35	30	1819	1764	36	78.0	78.3
La Cienega Boulevard		Hard	30	35	35	30	4989	4839	100	82.4	82.7
Olympic Boulevard		Hard	30	35	35	30	4689	4548	94	82.1	82.4
Robertson Boulevard		Hard	30	35	35	30	2599	2521	52	79.5	79.8
Santa Monica Boulevard		Hard	30	35	35	30	3159	3064	63	80.4	80.7
South Beverly Drive		Hard	30	35	35	30	3159	3064	63	80.4	80.7
Wilshire Boulevard		Hard	30	35	35	30	3949	3830	79	81.3	81.6

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998). The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5. Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.

Accuracy of the calculation is within 20.1 do when comparing to Trivin results.

Noise propagation greater than 50 feet is based on the following assumptions:

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.