
ERRATA 2

PALLADIUM RESIDENCES PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

A. INTRODUCTION AND BACKGROUND

1. INTRODUCTION

The City of Los Angeles (City) has prepared this second Errata to the Palladium Residences Environmental Impact Report (EIR). This Errata provides information regarding minor revisions to the Project design, additional information regarding the previous EIR analyses, minor clarifications to Mitigation Measures and Project Design Features, clarifications and minor edits to the Draft EIR, Final EIR and Errata 1 documents, and new agency correspondence.

The minor additions to the EIR do not constitute significant new information regarding the Project and the minor revisions to the Project's design do not result in more severe significant environmental impacts associated with the Project. Therefore, re-circulation of the Draft EIR for public review and comment is not required. The California Environmental Quality Act (CEQA) only requires recirculation of a Draft EIR prior to certification when "significant new information" is added to a Draft EIR. Section 15088.5 of the CEQA Guidelines states that "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." CEQA Guidelines Section 15088.5 also provides that "[r]ecirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR"

Changes to the EIR are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with underline.

2. BACKGROUND

In accordance with Section 15082 of the CEQA Guidelines, the City of Los Angeles prepared and circulated a Notice of Preparation (NOP) for public comment to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties for a 33-day review period, commencing August 8, 2013 and ending September 9, 2013. The NOP formally informed the public that the City was preparing an EIR for the Project, and solicited input regarding the scope and content of the environmental information to be included in the EIR. A public scoping meeting was held on August 29, 2013, in the Hollywood Palladium within the Project Site.

An EIR was prepared and circulated for a 47-day public review from October 23, 2014 through December 8, 2014, in compliance with Section 15105(a) of the State CEQA Guidelines. A Final EIR that included responses to comments on the Draft EIR and corrections and additions to the Draft EIR was prepared and

distributed on March 31, 2015. The Final EIR includes comments from and responses to 44 commenting parties including Public Agencies, Native American Organizations, Community Organizations and Individuals and Businesses.

Subsequent to completion of the Final EIR, the City of Los Angeles Hearing Officer, on behalf of the City Planning Commission, and the Deputy Advisory Agency conducted a joint public hearing on April 15, 2015 at which members of the public had an opportunity to present oral and written testimony regarding the Project. Based on this hearing, and public comments received, the Advisory Agency approved Vesting Tentative Tract Map (VTTM) No. 72213 for the Project on August 6, 2015. That decision was appealed, and those appeals included comments on the EIR.

Following that, the Project Applicant proposed certain refinements to the Project to further reduce Project impacts and the City prepared new EIR information to address comments raised in the appeals. New information was included in an Errata 1 that was posted to the City web-site on November 6, 2015. Errata 1 provided information regarding minor refinements to the Project, clarifications and minor edits to the EIR, added agency correspondence and supplemental technical analyses.

At the City Planning Commission (CPC) hearing on November 19, 2015, the applicant proposed a few additional project design modifications requested by one of the appellants, which appellant then withdrew its appeal of the Project's VTTM. The CPC reviewed the Project and the one remaining appeal of the VTTM approval at hearings on November 19, 2015 and December 10, 2015. At its hearing on December 10, 2015 the CPC denied the VTTM appeal, recommended approval of the General Plan Amendment and Zone Change, approved the Project's remaining entitlements, and approved the proposed Project modifications, which are addressed in Section B below. The CPC also certified the EIR, including Errata 1, in connection with the approved entitlements.

B. PROJECT REFINEMENTS

The City Planning Commission approved minor Project refinements proposed by the Project Applicant in response to requests by one of the appellants of the August 6, 2015, VTTM determination. The minor modifications were proposed to enhance views over and through the Project Site, as well as reduce building massing:

- **Podium Height Reduction:** The Project's podium element on the northeast part of the Project Site has been reduced from 105 feet proposed as part of Alternative 7 to a maximum of 75 feet above street level. This lowered height matches the height originally proposed for the Project and analyzed in the Draft EIR.
- **Selma Avenue Setback:** With the reduced podium height, the setback of the podium edge from the street at Selma Avenue is 10 feet.
- **Open-Air Area:** Above the podium on El Centro, beginning approximately 65 feet back from the southern face of the El Centro Tower and continuing to the northern end of the podium, the elevations between 75 and 93 feet above street level have been opened to light and air, and are unenclosed (other than accommodating customary, required building infrastructure, circulation, etc.).
- **Additional Tower Setback:** The El Centro Tower above the podium has been set back an additional ten (10) feet from El Centro Avenue.

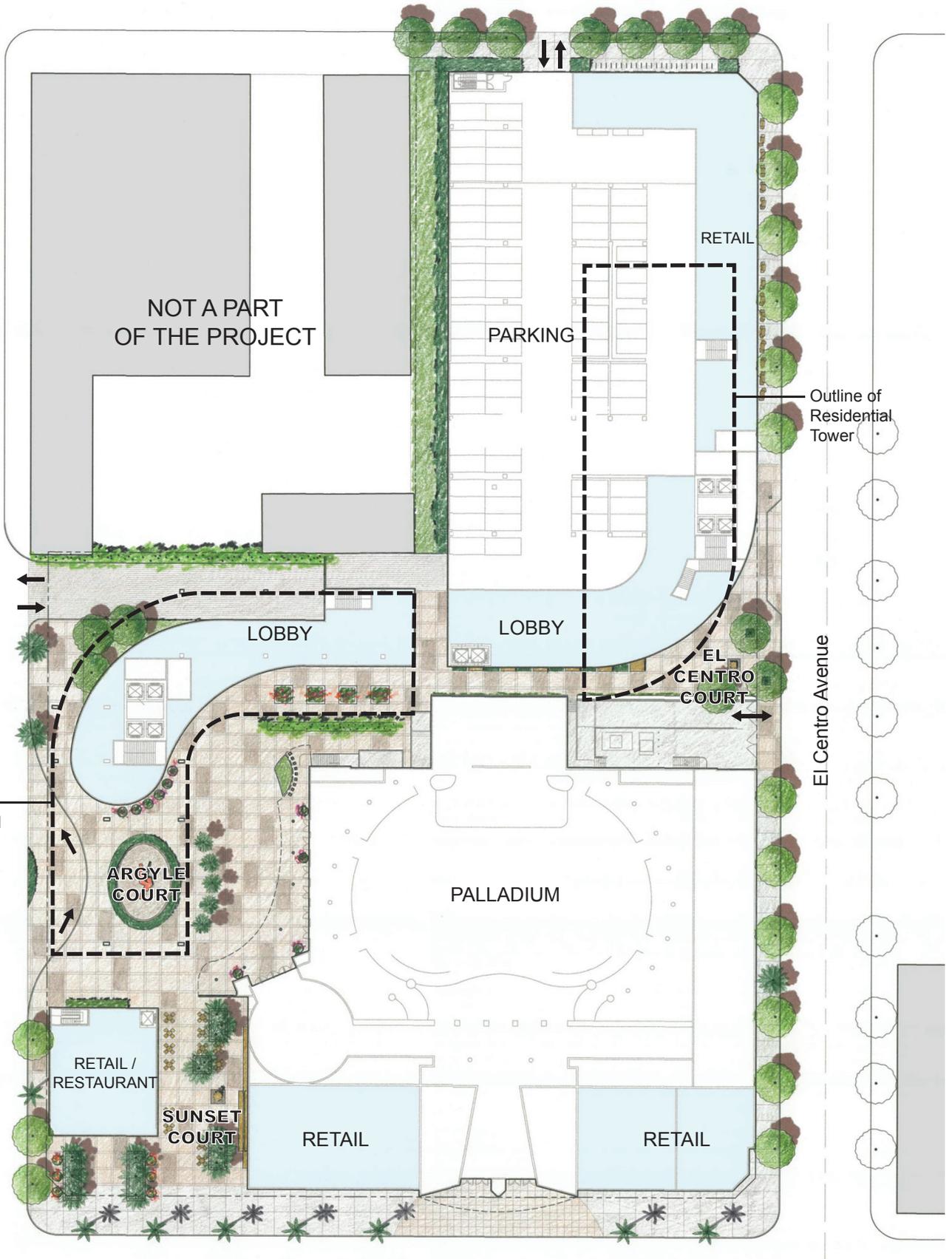
These minor Project refinements would increase view lines around the tower, over the podium and through the gap in the building. The aesthetic impacts of the building massing would be similar to or better than those of the previous Project design from nearby areas. From more distant areas whereby views over and around the Project are enhanced, there would be slightly less massing and slightly more building articulation. The slightly reduced setback along Selma Avenue would be similar to and consistent with setbacks and sidewalk frontages of other development in the Project area. As such, the Project development would blend into the general street level appearance.

Updated vehicle access was also included in the plans approved by the City Planning Commission, which would increase the amount of connected ground level landscaped space in Argyle Court. The Argyle driveway north of the porte-cochere would provide two-way inbound and outbound vehicular access, rather than only inbound access. With the full access provided by the northern Argyle driveway, the porte-cochere would be slightly shallower and allow for pick-ups / drop-offs without accessing the parking structure. Trucks would also be able to exit the site via the full access Argyle driveway.

The refinements would increase the amount of usable open space in Argyle Court for pedestrian activity by several thousand square feet. The pedestrian access and queuing area adjacent to the Palladium would be extended westward toward Argyle Avenue incorporating the landscaping treatments into a larger contiguous area. As such, the refinement would improve the quantity and quality of the Project's open space, enhance the Palladium experience and result in less Project impact on parks and open space than reflected in the Draft EIR analyses.

The Project's refinements are shown in an updated Site plan, included as **Figure 1**, *Conceptual Site Plan*, below. The Corrections and Additions Section below provides an updated analysis confirming that these refinements do not alter the conclusions of the Draft EIR that the Project's access impacts would be less than significant.

Selma Avenue



Outline of Residential Tower

Outline of Residential Tower

Argyle Avenue

El Centro Avenue

Sunset Boulevard



Conceptual Site Plan

Palladium Residences

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FIGURE

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C. ADDITIONAL EIR INFORMATION

Supplementary Information has been added to the EIR for the following topics and topic related considerations.

1. AESTHETICS AND VIEWS

Supplementary Information Regarding Project Lighting Impacts

As discussed in the Draft EIR analysis, SB 743 (Section 21099(d)(1)), “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.” As the Project is an infill project (mixed-use residential and employment center project) within a transit priority area, its impacts on aesthetics, inclusive of lighting impacts are considered less than significant. Nonetheless, the Draft EIR includes a discussion of lighting impacts and a supplementary analysis of the Project’s lighting impacts has been added to the EIR to address comments that were raised in the appeal of the City’s approval of Vesting Tentative Tract No. 72213 by Kilroy Realty Corporation, which appeal has since been withdrawn. The supplementary information addresses the same impact issues that were addressed in the Draft EIR: impacts to ambient lighting conditions, impacts on nearby sensitive uses and the character of the Palladium surroundings.

The additional information includes more detailed information regarding: a) the regulatory framework under which Project lighting would be implemented, b) applicable standards for measuring lighting effects, and c) quantified lighting levels for existing conditions and “future with Project” conditions. The added detail to the EIR analysis of lighting impacts supports the information currently included in the EIR and the conclusion that the Project would not have a significant impact on lighting. The information is provided in a new Lighting Technical Analysis that is included as Appendix A-1, and summarized in the Corrections and Additions Section below.

Planning Department Guidance on SB 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects including the development of infill projects in transit priority areas. Under SB 743, aesthetics and parking for certain infill projects within transit priority areas (TPAs) shall not be considered significant impacts on the environment. This provision would apply to the Project as it is a mixed-use residential and employment center project that is infill in nature and located within a transit priority area. The Draft EIR cites SB 743 within both the Aesthetics and Transportation sections to support the conclusion that the Project cannot and will not have significant impacts on aesthetics and parking. Notwithstanding, an analysis is provided in the EIR that follows the methodology guidance in the *City of L.A. CEQA Thresholds Guide (2006)* to determine the Project’s potential aesthetics and parking impacts, which would apply absent SB 743.

To ensure consistent environmental review pursuant to CEQA under SB 743, the City of Los Angeles Planning Department released Zoning Information File, ZI No. 2452, to provide guidance regarding the application of SB 743 to CEQA review in the City of Los Angeles. As cited in ZI No. 2452, “visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City’s CEQA Threshold Guide shall not be considered an impact for infill projects within TPAs (shown in the

attached map) pursuant to CEQA.” The ZI also identifies other topics that do not qualify, such as impacts to cultural or historic resources.

ZI No. 2452 includes a citywide map of TPAs in the City of Los Angeles for determining if a project is within a TPA. The Project is located within the TPA designations on this map. The ZI indicates that TPAs will eventually be identified in ZIMAS, while the TPA map is provided for reference on an interim basis; and also provides further guidance for identifying applicable projects. The ZI also notes that SB 743 did not limit the ability of the City to regulate, or study aesthetic related impacts pursuant to other land use regulations found in the Los Angeles Municipal Code (LAMC), or the City’s General Plan. While the project is not subject to such an analysis, it has nevertheless been included in the Project’s EIR.

The ZI supports the conclusions within the EIR that the Project’s impacts on aesthetics and parking are less than significant pursuant to City guidance for implementing the provisions of SB 743. ZI No. 2452 is included as Appendix A-2.

2. AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Supplemental Greenhouse Gas Emissions Analysis.

Additional information is being added to the analysis of Greenhouse Gas Emissions to address the California Supreme Court Case of *Center for Biological Diversity et al., v. California Department of Fish and Wildlife and The Newhall Land and Farming Company* (filed November 30, 2015: S217763; Ct. App. 2/5 B245131; Los Angeles County Super. Ct. No. BS131347, filed December 17, 2015). The case addressed an EIR for the Newhall Ranch development project. The court decision provided direction for future analyses of development impacts on greenhouse gas emissions. Accordingly, additional information is included below to address the Court directives.

The new information provides supplemental evaluation of Project consistency with regulatory guidelines for reducing greenhouse gas emissions. It further discusses consistency with the SCAG 2012 RTP and the currently drafted 2016 RTP update, as well as the City of Los Angeles’ green sustainability standards (e.g. the Green L.A. Plan). The added information also addresses the Project’s evaluation of greenhouse gas emissions against a “business as usual” threshold.

The new information has been incorporated in the Corrections and Additions section below, with supplementary information added to Section 4.0, Greenhouse Gas Emissions, and Appendix B of this Errata 2. The added analyses conclude that the Project is consistent with applicable guidelines and standards for reducing greenhouse gas emissions, and that utilization of the statewide reduction from BAU as a CEQA threshold of significance represents a conservative and logical approach to analyzing the Project’s GHG emissions. These supplemental analyses support the EIR analysis that the Project impacts on greenhouse gas emissions would be less than significant.

3. LAND USE AND PLANNING

Additional Information Regarding Consistency Analysis of the Project with LAMC Section 11.5.6 and City Charter Section 555.

The Draft EIR Project Description, Section 2.0, identifies as a Necessary Project Approval a “General Plan Amendment to designate the Selma Avenue Area as Regional Center Commercial consistent with the Sunset Boulevard Area designation and the designation of surrounding properties.” The analysis of Project Impacts in Section 4.H, Land Use, Subsection 3.d.(2)(b), provides an analysis of the General Plan Amendment’s consistency with the General Plan Framework and Hollywood Community Plan (pages 4.H-33 to 4.H-46). That discussion is supplemented below to analyze Project consistency with LAMC Section 11.5.6, and City Charter Section 555, which provide procedures for adoption of General Plan amendments. The added information addresses comments raised during the hearing process and in the VTTM appeal, and confirms the EIR conclusion that the General Plan Amendment is appropriate and together with the Project would have a less than significant impact on Land Use.

Additional Information Regarding General Plan and Zoning Designations

The EIR land use discussion notes that the corresponding zoning for the current Commercial Manufacturing General Plan land use designation on the Selma Avenue Area are CM and P. The C4 zone, which is the current zone, is not consistent with the Commercial Manufacturing Plan land use designation. The Errata’s updated land use analysis includes supplemental information regarding the necessity of the proposed General Plan Amendment to provide consistency with zoning.

4. TRANSPORTATION AND CIRCULATION

Caltrans Letter Confirming No Further Comments on Project

The traffic analysis conducted as part of the Draft EIR for the Palladium Residences Project considered background traffic growth and 62 known related projects in the Hollywood area. This analysis concluded that Project impacts on the freeway system would be less than significant and would not be cumulatively considerable. Caltrans submitted a comment letter on the Draft EIR which discussed coordination with the City of Los Angeles regarding possible need for signalization of the Gower Street & US-101 Southbound Off-Ramp/Yucca Street US-101.

The analysis presented in the Draft EIR determined that intersection #25 (Gower Street & the US-101 Southbound Off-Ramp/Yucca Street) satisfies standard signal warrants under existing conditions and under future conditions both with and without the Project. This indicates that installation of a signal could potentially be warranted, whether or not the Project is constructed. Independent from the Project, as the project does not result in a significant impact at this location, the Final EIR stated that the City will coordinate with Caltrans to determine whether any additional analysis is needed and whether a signal should be installed and, if so, to install the signal. However, because the Project does not result in a significant impact at this location, there is no need for mitigation, such as the installation of a signal. Since publication of the Draft EIR, it was determined that the Paramount Studios project, EIR Related Project #6, has agreed to fund installation of a signal at this location

On November 30, 2015, Caltrans issued a letter to City Planning, included as Appendix B-1 to the EIR Errata 2, stating that it has no further comments on the Project.

Supplementary Information Regarding Cumulative Traffic Impacts

As discussed on page C-13 of Errata 1, the traffic impact analysis in the Draft EIR was conservative and overestimated Project traffic impacts. Even though the related projects list could be limited to projects on file with the City at the time of the Project's NOP (pursuant to CEQA Section 15125), the Transportation Analysis Report and EIR also analyzed additional projects filed between the NOP and publication of the Draft EIR. The analysis of the Project's impacts also included an ambient growth rate of 1 percent per year to account for additional increases in traffic. Further, the Draft EIR included an additional analysis to account for unforeseen additional development. This analysis assumed and applied an additional 0.100 increment to V/C ratios under both future baseline "without Project" and "with Project" conditions to every traffic intersection studied, which is the amount that raises the operating level of most congested intersections by one class (e.g. LOS C to LOS D). This reflects a more congested condition and requires a smaller increment of Project trips to cause a significant impact. Therefore, a more conservative traffic analysis was provided.

There have been public comments regarding traffic congestion in the Project vicinity. In order to provide the public and decision makers additional information regarding traffic impacts, a supplemental traffic analysis has been prepared which considers traffic from two new development projects that have been proposed in Hollywood since publication of the Final EIR: Crossroads Hollywood at 1540 Highland Avenue, and 6200 Sunset, at 6200 Sunset Boulevard. The analysis is not required under CEQA, as the EIR analyses include the known related projects as of the NOP date, with non-required updates to the related projects list during the preparation of the Draft EIR. The supplemental cumulative impact analysis is included as Appendix B-2 to this Errata 2. This supplemental analysis concludes that the addition of the two new development projects would not result in any new significant cumulative traffic impacts not otherwise accounted for in the EIR traffic analysis.

Corrections Regarding the Number of Public Transit Trips

A minor correction has been made to the number of transit trips in the Corrections and Additions Section below. The revised number of trips is approximately the same as the number of trips cited in the Draft EIR and does not alter the conclusions of the analysis of Project impacts on public transit services.

Additional Information Regarding Site Access

Additional information is being added to the EIR to address refinements to the Project's Site access. The additional information supports the conclusion of the EIR that the Project would not have a significant impact on site-access.

Additional Information regarding Construction Trip Generation

The construction trip generation estimates provided in the Draft EIR do not reflect the effect of the various mitigation measures and conditions restricting truck traffic to non-peak periods. With these restrictions, which are specified in mitigation measures MM-TRAF-3 and MM-TRAF-5, haul trucks and delivery trucks (with the exception of concrete trucks during the one- to two-day continuous concrete pour) would not be permitted to travel to/from the site during the peak commute hours of 7:00 to 9:00 A.M. and 3:00 to 7:00 P.M..

Thus, the truck trips shown in Table 15 in the Transportation Analysis Report (Appendix K-1 to the Draft EIR) as occurring during the A.M. and P.M. peak hours overstates the number of truck trips during construction. Phase 1 A.M. and P.M. peak hour trips would each be reduced by approximately 90 passenger-car-equivalent (PCE) trips and Phases 3, 4 and 5 A.M. and P.M. peak hour trips would each be reduced by approximately 104 PCE trips. The concrete trucks for the continuous concrete pour would arrive and depart continuously throughout the one- to two-day concrete pour phase (Phase 2), resulting in approximately 100 PCE trips per hour. Table 15 has been revised to reflect the adjusted distribution of construction trips. The Revised Table 15 is included as Appendix C-3, below.

Furthermore, with the selection of Alternative 7 as the proposed Project, the number of subterranean parking levels, would be reduced by approximately 30%. The revised Table 15 assumes that there would still be up to 180 haul trucks per day, meaning that the reduced amount of excavation would shorten the duration of the hauling phase. It is also possible that the number of haul trucks per day could be reduced.

Therefore, in light of this updated information, the Project's construction impacts are anticipated to be less than reported in the Draft EIR.

Additional Information Regarding Off-Site Parking Availability

As discussed in the Draft EIR analysis, SB 743 (Section 21099(d)(1)), "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." As the Project is an infill project (mixed-use residential and employment center project) within a transit priority area, its impacts on parking are considered less than significant. Nonetheless, additional information is provided regarding the current availability of off-site parking facilities in the vicinity of the Project Site for use during Project construction, by construction workers or members of the public and members of the public attending Palladium events. The information supports the EIR conclusion that off-site parking would be available for construction workers and members of the public attending Palladium events.

Minor Amendments to Mitigation Measures and the MMRP

Based on public comment during the hearing process, clarifications are being added to the mitigation measures and MMRP. Construction Mitigation Measure MM-TRAF-2 is being revised to add a flagger at El Centro Avenue, Argyle Avenue, and, should it occasionally occur, at Sunset Boulevard truck entry points. Construction measures MM-TRAF-3 and MM-TRAF-5 are being revised to define the off-peak hours referenced therein. In the MMRP, the action indicating compliance for MM-TRAF-7 regarding traffic control improvements is being revised to indicate that sign-off on the improvement shall happen "prior to the issuance of certificate of occupancy" as opposed to the completion of construction work.

Clarification on Construction Time Frame

Minor corrections are being made to clarify the estimated construction time-frame as 3 years in contrast to 3.5 years as cited in the Transportation Analysis Report. The three year time frame was cited in the Project Description of the Draft EIR and used as the basis for the EIR analyses.

Zoning Information File Pertaining to SB 743

As described above under Aesthetics, the purpose of SB 743, which became effective on January 1, 2014, is to streamline the review under CEQA for several categories of development projects including the development of infill projects in transit priority areas. Under SB 743, aesthetics and parking for certain infill projects within transit priority areas (TPAs) shall not be considered significant impacts on the environment. SB 743 applies to the Project as it is a mixed-use residential and employment center project that is infill in nature and located within a transit priority area. The Draft EIR cites SB 743 within both the Aesthetics and Transportation sections to support the conclusion that the Project would not have significant impacts on aesthetics and parking.

To ensure consistent environmental review pursuant to CEQA under SB 743, the City of Los Angeles Planning Department released Zoning Information File, ZI No. 2452, to provide guidance regarding the application of SB 743 to CEQA review in the City of Los Angeles. As cited in ZI No. 2452, parking impacts shall not be considered an impact for infill projects within TPAs pursuant to CEQA.

ZI No. 2452 includes a citywide map of TPAs in the City of Los Angeles for determining if a project is within a TPA. The Project is located within the TPA designations on this map. The ZI indicates that TPAs will eventually be identified in ZIMAS, while the TPA map is provided for reference on an interim basis; and also provides further guidance for identifying applicable projects. The ZI supports the conclusions within the EIR that the Project's impacts on parking and aesthetics are less than significant pursuant to City guidance for implementing the provisions of SB 743. ZI No. 2452 is included as Appendix A-2.

5. INFORMATION REGARDING THE PROJECT'S COMPLETION

The EIR analyses were based on a three year construction schedule that would begin at the onset of 2016 and be complete by the end of 2018. Due to the length of the public hearing and approval process, including the appeals that have been filed of the Project's approvals, construction will not begin in early 2016. However, as analyzed below, even if the three year construction period began later and ended in 2020, a 2020 buildout date would not alter the conclusions of the EIR.

As discussed in detail below, most of the environmental impact areas in the Project's EIR are analyzed against baseline conditions at the time the NOP was published, rather than being tied to a specific buildout date. Therefore, those analyses and conclusions would be unchanged using a buildout date of 2020. An exception to this is the traffic analysis, which is based on future conditions. However, the EIR traffic analysis was extremely conservative and addressed potential impacts beyond 2018 or 2020, as discussed further below. Additionally, the related projects list is conservative, in that it includes projects which filed applications after the Project's NOP was published. The related projects list would not change using a 2020 buildout date. Therefore, the EIR's conclusions regarding project traffic impacts would likewise remain unchanged using a 2020 buildout date.

The following provides further analysis of Project impacts using a 2020 buildout date, which confirms the EIR's analysis and conclusions.

Construction Impacts

Construction impacts are discrete activities based on site activity occurring on a given day and the duration of construction activity. The Project's analysis of daily construction activity is based on a three year construction schedule that provides a very conservative estimate of the amount of construction activity that might occur on a maximum day of activity (i.e. the EIR assumes the greatest amount of feasible construction activity, potentially overestimating construction impacts on a maximum day of activity). The duration and intensity of construction activities would not change with a later buildout date. Since the Project's construction impacts are based on a maximum day of activity, which would not change, the EIR's construction analyses and conclusions would remain the same as reported in the EIR even with a later buildout date.

Cumulative impacts due to construction are more associated with the overlap of construction projects than the date at which the impacts occur. The Draft EIR analyzes potential cumulative construction impacts associated with 62 related projects. Two Projects (related project # 44, Columbia Square, and related project #11, Selma & Vine mixed use) are located immediately adjacent to the proposed Project Site, forming a potentially common construction area with potential cumulative construction impacts along Argyle Avenue; El Centro Avenue between Sunset Boulevard and Selma Avenue; and along Selma Avenue east of Vine Street. Both of these projects are currently under construction. A delay in the onset of Project construction means that construction of these two related projects could be complete prior to the onset of Project construction, or the length of overlapping construction periods could be substantially reduced. Therefore, delay in the start of construction of the Project could substantially reduce cumulative construction impacts on these adjacent streets. Further, cumulative construction impacts were already identified in the Draft EIR as being significant and unavoidable due to the potential for concurrent construction of the related projects in the vicinity of the Project site in conjunction with the Project.

The Draft EIR also analyzed potential impacts on future residents of these related projects, potentially occupied during the Project's construction. In particular, the analyses of air quality and noise impacts due to construction addressed impacts on the four related projects immediately adjacent to the Project Site. The air quality analysis concluded that construction impacts would be less than significant. The noise analyses resulted in the implementation of mitigation measures (noise barriers) to reduce the construction impacts at those locations to less than significant levels. However, acknowledging that there may be times when the noise barrier may need to be relocated or temporarily removed, the analysis concluded that cumulative noise impacts would be significant and unavoidable. These EIR conclusions would be unchanged with a later buildout date.

Operations Impacts

Aesthetics/Visual Resources: As discussed in the Draft EIR analysis, SB 743 (Section 21099(d)(1)), "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." As the Project is an infill project (mixed-use residential and employment center project) within a transit priority area, its impacts on aesthetics are considered less than significant. Nonetheless, the Draft EIR includes an analysis of Project impacts with regard to aesthetics and visual resources that is based on Project changes to the existing site. These impacts are not tied to the 2018 buildout date and would not change with a later buildout date. The cumulative aesthetic impacts analysis analyzes impacts of the Project plus related projects against an existing conditions baseline. The Project lies within a heavily developed

area, with established development patterns and aesthetic relationships. The cumulative analysis identifies substantial amounts of new development under construction and/or proposed for development that will further shape the aesthetic character on adjacent sites. Any further development in the vicinity would be of an in-fill nature, and not alter those relationships as evaluated in the cumulative analysis. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Air Quality/Greenhouse Gas Emissions: Project impacts with regard to air quality and greenhouse gas emissions are based on the type, amount and efficiency of machinery and vehicle trips generated by the Project. Emission levels and energy efficiency of on-site equipment and automobiles are constantly improving with time as a greater percentage of vehicles meet more stringent emissions standards, therefore a later buildout date is anticipated to result in similar or reduced emissions from the Project as compared to use of a 2018 buildout date. Similarly, the cumulative analysis of the Project together with related projects against more distant timelines reflect similar or lessened impacts due to improvements in emissions and energy efficiency standards. Therefore impacts analyzed in the EIR would be unchanged or improved using a later buildout date.

Cultural Resources: Impacts regarding cultural resources are based on analyses of changes to the existing Project Site that would occur regardless of the time of development. The Project's cumulative analysis took into account adjacent off-site related projects that might contribute to joint effects with the proposed Project and the existing cultural resources in the larger Project vicinity. Existing conditions would not change for the proposed Project or related Projects in the Project vicinity using a 2020 buildout date. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Geology: Impacts regarding geology are related to the existing geology and soil characteristics of the Project Site and the design characteristics of the development. Existing conditions would not change for the proposed Project or related Projects in the Project vicinity using a 2020 buildout date. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Hazards and Hazardous Materials: The analysis of hazards and hazardous materials focuses on the existing character of the Project area. Existing conditions would not change for the proposed Project or related Projects in the Project vicinity using a 2020 buildout date. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Hydrology and Water Quality: The analysis of hydrology and water quality addresses the Project and nearby related Projects against a baseline of drainage patterns and drainage systems in the Project vicinity. Existing conditions would not change for the proposed Project or related Projects in the Project vicinity using a 2020 buildout date. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Land Use and Planning: The Project is consistent with existing land use plans and policies, and the EIR's analysis would not change using a 2020 buildout date. The cumulative analysis of land use impacts of the Project plus related projects is also measured against an existing conditions baseline. The Project lies within a heavily developed area, with established development patterns. The current cumulative analysis identifies substantial amounts of new development under construction and/or proposed for development that will further define the land use patterns within the Project vicinity. Any further development in the vicinity

would be of an in-fill nature, and not alter those development patterns. The EIR's cumulative impacts analysis would not change using a 2020 buildout date. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Noise: Noise impacts due to Project operations are generally analyzed against existing noise levels at nearby sensitive receptors. This analysis would not change using a 2020 buildout date. The one time-specific exception is the analysis of traffic noise along street segments in the Project vicinity. The Draft EIR's traffic noise analysis is based on the 2018 background traffic levels, as reflected in Table 4.I-10 of the Draft EIR. A supplemental analysis of cumulative operational noise impacts due to traffic has been prepared using traffic volumes in 2020, as adjusted by the standard ambient growth rate of 1 percent per year. An updated version of Table 4.I-10 of the Draft EIR, based on the 2020 traffic volumes, is include in Appendix D-1 below. As indicated therein, the cumulative impacts and the Project's contribution to cumulative impacts would be similar to those reported in the Draft EIR and no new impacts would occur. Generally, cumulative noise levels based on the 2020 traffic volumes increased by approximately 0.1, dBA, CNEL along several street segments, and such increases were still substantially below significance levels. In some cases the Project contribution to cumulative impacts went down by approximately 0.1 dBA CNEL.

Population, Housing and Employment: This analysis compares the amount of development from the Project and related projects to SCAG demographic estimates at the expected Project completion date of 2018. Extending the completion date would result in higher levels of estimated growth in the SCAG projections, and the contribution of the Project and the related projects would be a lower percentage of that growth. Therefore, as compared to the EIR's analysis, cumulative impacts would be lessened with respect to consistency with SCAG projections using a 2020 buildout date. The shorter time-frame used by the EIR therefore provides a more conservative analysis. The analysis of consistency with the Hollywood Community Plan is based on estimated Plan buildout demographic characteristics that are not tied to the 2018 buildout date.

Public Services: The analyses of Project and cumulative impacts on public services are based on additions of the Project and related projects to the existing baseline conditions, unrelated to buildout date. Further, cumulative impacts on parks and schools are mitigated through the payment of fees pursuant to Sections 17.12 and 12.33 of the LAMC and Government Code Section 65995 and SB 50, respectively. These mitigation fees provide a mechanism for addressing growth, commensurate with development as it comes on line over time. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

Transportation and Circulation: The Traffic Study's cumulative impact analysis is very conservative, as discussed in the Draft and Final EIR. In addition to including trips generated by over 60 related projects and a standard ambient growth rate of 1 percent per year, the analysis applied an additional 0.100 increment to V/C ratios under both future baseline "without Project" and "with Project" conditions to every study intersection. 0.100 is the amount that raises the operating level of most congested intersections by one class (e.g. Level of Service "C" to Level of Service "D") reflecting a more congested condition and requiring a smaller increment of change to cause a significant impact. (See Draft EIR at p. 4.L-49.) This analysis was not required by CEQA or LADOT, but was added to ensure an extremely conservative (environmentally protective) analysis. This 0.100 increment added to the related project trips and the ambient traffic growth rate can be viewed as roughly the equivalent of extending the future year of the analysis by approximately 10 years (conservatively assuming a continued 1 percent per year background growth rate). Therefore, if the

Project's construction is completed in 2020, those impacts are included in the EIR's cumulative traffic impact analysis and no new significant traffic impacts would be generated.

Utilities and Service Systems: The analyses of utilities are based on future plans and baseline data of the service providers. They reflect service and planning horizons that extend beyond 2020; and the plans are updated at regular intervals to allow for long range as well as mid-range service capacity. Impacts on service delivery at the Project site is based on the existing conditions, and take into account the impacts of the Project and the related projects in the cumulative impacts. The noted impacts are not time specific. Therefore impacts analyzed in the EIR would be unchanged using a later buildout date.

The analysis of Water Supply is based on supply and demand characteristics over a 25 year time horizon (i.e. until 2035) in the 2010 UWMP. The Wastewater analysis is based on the 2006 Integrated Resources Plan (IRP). The IRP accounts for projected needs and sets forth improvements and upgrades to wastewater systems, recycled water systems, and runoff management programs in the City through the year 2020. The Solid Waste analysis is based on information based in the Los Angeles County Integrated Waste Management Plan, 2012 Annual Report that addresses capacity over a 15-year period ending in 2027. The 2012 Annual Report indicates that future disposal needs over the next 15-year planning horizon would be adequately met through the use of in-County and out-of-County facilities through a number of strategies that would carried out over the years. The analysis of impacts on Electricity consumption is addressed in the LADWP 2013 IRP, which is based on a 20 year planning horizon. As indicated, LADWP is fully resourced to meet peak demand needs. Data in the 2013 IRP (Appendix A, Table A-1) indicates that peak demand in 2020 will be less than in 2018. The analysis of impacts on consumption of natural gas is based on information in the 2014 California Gas Report. This report indicates that that future demand is expected to decline at an annual rate of 0.33 percent from 2012 to 2035. In other words, the 2020 demand for natural gas will be less than the 2018 demand.

D. CORRECTIONS AND ADDITIONS

The following sections of the EIR have been revised to provide supplementary information to the EIR. The following additional corrections and additions to the EIR are provided with deletions shown in ~~strikethrough~~ and additions show in underline.

Executive Summary

1. Volume 1, Table ES-1, PDF Column for E. Greenhouse Gas Emissions, Page ES-25. Revise PDF-GHG-2 by adding the following design features after the last bullet item in the current list:

- No on-site car washing facilities will be provided;
- Pools/Spas will be heated by natural gas;
- An online portal will be provided to include message board or other tools to organize ridesharing programs;
- On-site residents will be provided LADOT and Metro regional transit information;
- The Project will install solar panels on at least 1,300 square feet of roof-top space and/or equipment;
- The Project will include 40 electric vehicle (EV) chargers, that would be capable of servicing 80 parking spaces, within parking areas.

2. Volume 1, Table ES-1, Mitigation Measures Column for Section 4.L, Transportation and Circulation Pages ES-48 to ES-49. Revise construction mitigation measures MM-TRAF-2, MM-TRAF-3, and MM-TRAF-5, as follows:

MM-TRAF-2: A ~~flagman~~ flagger shall be placed at the truck entry and exits from the Project site onto Selma Avenue, El Centro Avenue, Argyle Avenue and/or Sunset Boulevard to control the flow of exiting trucks.

MM-TRAF-3: With the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days, deliveries ~~Deliveries~~ and pick-ups of construction materials shall be scheduled during non-peak travel periods (avoiding the peak commute hours of 7:00 to 9:00 A.M. and 3:00 to 7:00 P.M. on weekdays) and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.

MM-TRAF-5: Permanent lane or sidewalk closures are not anticipated for the Project long-term operations. Temporary lane or sidewalk closures, when needed for construction, shall be scheduled to avoid peak commute hours (7:00 to 9:00 A.M. and 3:00 to 7:00 P.M. on weekdays) and peak school drop-off and pick-up hours to the extent possible, with the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days. In the event of full-time lane or sidewalk closures for construction, a worksite traffic control plan, approved by the City of Los Angeles, shall be implemented to safely route traffic or pedestrians around any such lane or sidewalk closures.

Chapter 2.0 Project Description

1. Volume 1, Section F.6, Vehicle Access, Circulation, Bicycle Amenities and Parking, Page 2-20. Revise the first two paragraphs of Section F.6, starting at the second paragraph on the page as follows:

As shown in Figure 2-5, as revised in EIR Errata 2 Figure 1, vehicle access to the Project Site would be provided via three driveways on Argyle Avenue and one driveway on Selma Avenue. The southernmost driveway on Argyle Avenue would provide one-way inbound access to the covered, semicircular entryway for pick-up/drop-off. ~~Valet service would be available for Project residents, Project visitors, and Palladium event attendees.~~ The semicircular entryway would exit onto Argyle Avenue north of the inbound driveway. A third Argyle driveway is proposed to be located immediately north of the Porte Cochere, allowing two-way vehicular access to the site's parking areas. ~~Valets would take vehicles from the semicircular entryway to the parking structure via an internal driveway along the north side of the southwest building. Self parking residents or guests could access the internal driveway and parking structure from the semicircular entryway or directly from Argyle Avenue. Valets would return cars to the semicircular entryway via a ramp between the uppermost parking level and the semicircular entryway. Self-parkers could also enter and exit the parking structure via the Selma Avenue driveway.~~ Valet service would be available for Project residents, Project visitors, and Palladium event attendees, at the Porte Cochere or within the parking structure.

A new loading dock would be provided to serve the new buildings within the ~~ground level of the~~ parking structure. Trucks would enter the Site via the northernmost driveway on Argyle Avenue and proceed to the internal loading dock, and would exit ~~through the structure via~~ Argyle Avenue. Trucks may also be able to access the internal loading dock from Selma Avenue, the Selma Avenue driveway. Trucks would also be able to use the existing Palladium loading dock at the back of the Palladium, which would continue to be accessed from El Centro Avenue for Palladium loading only. A wall would be erected to screen the Palladium loading activities from view by people within the El Centro Court.

Section 4.A Aesthetics/Visual Resources

1. Volume 1, Section 4.A Aesthetics/Visual Resources, Page 4.A-48. After the second paragraph add the additional information regarding lighting impacts as follows:

The evaluation of lighting impacts has been supplemented by a Lighting Technical Analysis that is included as Appendix A to the EIR Errata 2. As reported in that study, the existing illuminance along the south side of Sunset Boulevard ranges from 1.28 foot-candles to 3.09 foot-candles. Along the north side of Sunset Boulevard it ranges from 1.77 foot-candles to 6.60 foot-candles, with the greatest illuminance at the Palladium marquis. The levels quickly diminish with distance from the marquee and blade sign.

The existing conditions surrounding the Palladium sign include views where the Palladium marquee sign is visible in the foreground with a surface brightness of 37.62 to 73.64 footLamberts, and illuminated buildings, signs, and street lights, are visible in the background. The brightness of retail and office uses in the area are in the range of 0.17 to 1.35 footLamberts. Other signs in the area have brightness levels up to 91.73 footLamberts. The nearby existing illuminated surfaces do not interfere with the visibility of the Palladium marquee sign due to its relatively high brightness level.

The Lighting Technical Analysis has evaluated impacts regarding both “light trespass” and “artificial light contrast.” Light trespass refers to light spill-over light from a source to adjacent properties. “Light contrast” refers to the ratio of light between two light surfaces within a field of view. As indicated in the Lighting Technical Analysis, the Project would not have significant impacts with regard to light trespass or artificial light contrast.

Light Trespass

Light trespass would be limited by regulatory requirements and distance between new Project development and sensitive viewing locations. The most conservative limit of exterior lighting that would be applicable to the Project is defined within the Title 24 Cal Green code, which specifies the maximum light trespass as 8 lux or 0.74 footcandles at the center of the adjacent public way. The horizontal distance from the Palladium marquee and blade sign on Sunset Boulevard would be approximately 200 feet to the western Project tower, (which is setback from Sunset Boulevard by approximately 125 feet) and 241 feet from the Project tower directly behind the building. Exterior lighting from the new residential buildings is designed to not exceed 0.74 foot-candles at 40 feet or less (distance to the center of the adjacent Argyle Street right of way), and would generate 0.03 foot-candles at 200 ft and 0.02 footcandles at 241 feet. These illuminance values are far less than the ambient conditions along Sunset Boulevard. The average measured value is 2.3 foot candles along this stretch of Sunset Boulevard, which represents the existing baseline background illuminance level for the Palladium marquee and blade sign vicinity. Therefore, light trespass impacts would be less than significant.

Artificial Light Contrast

Light and glare impacts would also be limited by the Title 24 Cal Green Code. Paragraph 5.1106.8 of this code requires all outdoor lighting to comply with the Backlight, Uplight and Glare (BUG) ratings as defined in the Illuminating Engineering Society of North America’s Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07). The net effect of these code regulations is that all outdoor lighting must be constrained to limit direct view of the light source and to direct light primarily downward and within the envelope of the new development, reducing the amount of light directed up into the sky. The Project’s interior lighting in residential units that would be noticeable from off-site locations is lower intensity and would present lower surface brightness than commercial interior office spaces such as those in the Project vicinity. The recommended illuminance values for office interiors range from 10 to 50 footcandles, and these values are 2 to 3 times the recommended values for most spaces within a residence. The measured luminance values of the office interior spaces at 6121 Sunset Boulevard adjacent to the Project Site is approximately 5 footLamberts. Since the Project lighting for residential interiors would be less than half these measured values, an estimated value of 2.5 footLamberts may be used as a comparison to the existing Palladium marquee and blade sign, with a surface illuminance of 37.62 footLamberts, or more than 15 times the estimated residential values. The Project will produce luminance values which are similar to, or lower than the existing office buildings adjacent to the Palladium site. The lighting within these existing buildings does not diminish the view of the Palladium sign. Therefore the brightness of the Project exterior and interior lighting, viewed within the context of the Palladium marquee and blade sign, would not diminish the visibility of the Palladium marquee and blade sign.

For these reasons, the Project lighting would not cause significant impacts on nearby sensitive uses nor substantially alter the appearance of the Palladium along Sunset Boulevard. The visibility of the Palladium marquee and blade sign would not be significantly impacted by the Project.

Section 4.B Air Quality

1. Volume 1, Section 4.B Air Quality, 3.c(2) Project Design Features, Page 4.B-38. Revise PDF-GHG-2 by adding the following design features after the last bullet item in the current list:

- No on-site car washing facilities will be provided;
- Pools/Spas will be heated by natural gas;
- An online portal will be provided to include message board or other tools to organize ridesharing programs;
- On-site residents will be provided LADOT and Metro regional transit information;
- The Project will install solar panels on at least 1,300 square feet of roof-top space and/or equipment;
- The Project will include 40 electric vehicle (EV) chargers, that would be capable of servicing 80 parking spaces, within parking areas.

2. Volume 1, Section 4.B Air Quality, Section 3.a.(3), page 4.B-27, first paragraph. Revise the fourth sentence as follows:

“Construction activities associated with the Project would be sporadic, transitory, and short term in nature (approximately ~~42 months~~ three years).

Section 4.E Greenhouse Gas Emissions

Section 4.E, Greenhouse Gas Emissions was revised in Errata 1. The revisions provided there have been updated and supplemented. Accordingly, Delete in its entirety the revisions shown in Errata 1, and replace those revisions with the following that reflect changes to the analysis as presented in the Draft EIR and previously included in Errata 1.

1. Volume 1, Section 4.E.2.b.(2) regarding Regulatory Setting, bottom of Page 4.E-15. Supplement the existing discussion of Senate Bill 375 (SB 375, Steinberg) by deleting the last sentence of the second paragraph and replacing it with the following supplementary information:

~~It is anticipated that SCAG will update the Sustainable Communities Strategy in 2016 and evaluate progress in implementing the strategies.~~

The SCAG Draft 2016 RTP/SCS (Regional Transportation Plan/Sustainable Communities Strategy) is an update to the 2012 RTP/SCS that further integrates land use and transportation in certain areas so that the region as a whole can grow sustainably. The 2016 RTP/SCS includes land use strategies, based on local general plans, as well as input from local governments, to achieve the state-mandated reductions in GHG emissions through decreases in regional per capita VMT (Vehicle Miles Travelled). The land use strategies respond to the continuation of the shift in demographics and household demand since 2012 towards small-

lot single-family and multifamily housing in infill locations near bus corridors, other transit infrastructure, and in high quality transit areas.

One of the major components of SB 375 is to use the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals. As part of the transportation strategies, the 2016 RTP/SCS includes transportation investments which promote more active transportation opportunities and facilities. Between 2015 and 2040, the region is anticipated to experience substantial increases in population, households and jobs. The 2016 RTP/SCS also includes land use strategies that seek to balance the region's land use choices and transportation investments. This means the 2016 RTP/SCS focuses new growth and development in existing urbanized areas and opportunity areas such as the high quality transit corridors (HQTAs) and incorporates strategies to increase walking, biking or other forms of active transportation. As part of the 2016 RTP/SCS, transportation network improvements would be included, and more compact, infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand.

Population and job growth would induce land use change (through development projects) and increase VMT, and would result in direct and indirect GHG emissions. The 2016 RTP/SCS supports sustainable growth through a more compact, infill, and walkable development pattern. The 2016 RTP/SCS focuses growth in existing urban regions and opportunity areas, where transit and infrastructure are already in place. Locating new growth near bikeways, greenways, and transit would active transportation options and the use of other transit modes (public transit, carpooling), thereby reducing number of vehicle trips and trip lengths and associated emissions. Land use strategies included in the 2016 RTP/SCS encourage higher density development in existing urban cores and opportunity areas which would encourage more multi-family and/or mixed-use projects, via vertical development, instead of the traditional single-family home development in new, undeveloped areas. Per the 2016 RTP/SCS, compact development and utilization of conservation strategies (i.e., Title 24 building codes, LEED certification) would limit energy and water consumption.

2. Volume 1, Section 4.E.2.b.(2) regarding Regulatory Setting, bottom of Page 4.E-16. Insert information regarding Executive Order B-30-15, and Cap and Trade Program as follows:

(I) Executive Order B-30-15

On April 29, 2015, California Governor Brown issued Executive Order B-30-15. Therein, Governor Brown:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

CARB subsequently expressed its intention to initiate the Climate Change Scoping Plan update during the Summer of 2015, with adoption scheduled for 2016.

(m) Cap and Trade Program

The Climate Change Scoping Plan identifies a cap-and-trade program as one of the strategies California will employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit GHGs.

CARB designed and adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The development of this program included a multi-year stakeholder process and consideration of potential impacts on disproportionately impacted communities. The Cap-and-Trade Program¹ is designed to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors² (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program’s duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 MTCO₂e (metric tons of carbon dioxide equivalents) per year must comply with the Cap-and-Trade Program.³ Triggering of the 25,000 MTCO₂e per year “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or “MRR”).⁴

Each covered entity with a compliance obligation is required to surrender “compliance instruments”⁵ for each MTCO₂e of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), buy allowances at auction, purchase allowances from others, or purchase offset credits. A “compliance period” is the time frame during which the compliance obligation is calculated. The years 2013 and 2014 are the first compliance period, the years 2015–2017 are the second compliance period, and the third compliance period is from 2018–2020. At the end of each compliance period, each facility will be required to surrender compliance instruments to ARB equivalent to their total GHG emissions throughout the compliance period. There also are requirements to surrender compliance instruments covering 30% of the prior year’s compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only

¹ 17 CCR §§ 95800 to 96023.

² See generally 17 CCR §§ 95811, 95812.

³ 17 CCR § 95812.

⁴ 17 CCR §§ 95100-95158.

⁵ Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use ARB-approved offset credits to meet up to 8% of their compliance obligations.

guaranteed on an accumulative basis. As summarized by CARB in its First Update to the Climate Change Scoping Plan:

*The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer **allowances. But as the cap declines, aggregate emissions must be reduced.***⁶

In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program. However, as climate change is a global phenomenon and the effects of GHG emissions are considered cumulative in nature, a focus on aggregate GHG emissions reductions is warranted.

Further, the reductions in GHG emissions that will be achieved by the Cap-and-Trade Program inherently are variable and, therefore, impossible to quantify with precision:

*The Cap-and-Trade Regulation is different from most of the other measures in the Scoping Plan. The [R]egulation sets a hard cap, instead of an emission limit, so the emission reductions from the program vary as our estimates of “business as usual” emissions in the future are updated. In addition, the Cap-and-Trade Program works in concert with many of the direct regulatory measures—providing an additional economic incentive to reduce emissions. Actions taken to comply with direct regulations reduce an entity’s compliance obligation under the Cap-and-Trade Regulation. So, for example, increased deployment of renewable electricity sources reduces a utility’s compliance obligation under the Cap-and-Trade Regulation.*⁷

If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In other words, the Cap-and-Trade Program functions sort of like an insurance policy for meeting California 2020’s GHG emissions reduction mandate:

*The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap.*⁸

⁶ CARB, *First Update to the Climate Change Scoping Plan: Building on the Framework*, at 86 (May 2014) (emphasis added).

⁷ *Id.*

⁸ *Id.* at 88.

*[T]he Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.*⁹

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB under AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.¹⁰ Accordingly, GHG emissions associated with CEQA projects' electricity usage would be capped in the aggregate and steadily reduced by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.¹¹ While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015:

*Suppliers of natural gas, suppliers of RBOB [Reformulated Gasoline Blendstock for Oxygenate Blending] and distillate fuel oils, suppliers of liquefied petroleum gas, and suppliers of liquefied natural gas specified in sections 95811(c), (d), (e), (f), and (g) that meet or exceed the annual threshold in section 95812(d) will have a compliance obligation beginning with the second compliance period.*¹²

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). However, transportation fuels that are "supplied" in California, but can be demonstrated to have a final destination outside California, do not generate a compliance obligation. The underlying concept here is that ARB is seeking to capture tailpipe GHG emissions from the combustion of transportation fuels supplied to California end-users. Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle-miles traveled (VMT) would be capped in the aggregate and steadily reduced by the Cap-and-Trade Program. As discussed in more detail below, the San Joaquin Valley Air Pollution Control District has taken this position in its recently adopted policy, effectively concluding that GHG emissions associated with VMT cannot constitute significant increases under CEQA starting in 2015.¹³

⁹ *Id.* at 86-87; see also CARB's 2013 Annual Compliance Obligation of the Cap-and-Trade Program reported 100 percent compliance for entities subject to the program (<http://www.arb.ca.gov/cc/capandtrade/2013compliancereport.xlsx>).

¹⁰ 17 CCR § 95811(b).

¹¹ 17 CCR §§ 95811, 95812(d).

¹² *Id.* at § 95851(b)(emphasis added).

¹³ San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR – 2030, at 6 (June 25, 2014).

(n) Senate Bill 350 (Clean Energy and Pollution Reduction Act of 2015)

The Clean Energy and Pollution Reduction Act of 2015, Senate Bill (SB) 350 (Chapter 547, Statutes of 2015) was signed by Governor Brown on October 7, 2015. SB 350 will (1) increase the standards of the California RPS (Renewables Portfolio Standard) program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) require the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provide for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) require the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. In other words, SB 350 essentially requires the energy efficiency of existing buildings to be doubled by 2030.

3. Volume 1, Section 4.E.3.a.(2) regarding methodology for the analysis of Greenhouse Gas Emissions, Pages 4.E-26 to 4.E-27. Edit the sections of text beginning with the first paragraph on page 4.E-26 and ending at the end of the first full paragraph in the middle of Page 4.E-27 as follows.

~~With regard to the target set by Executive Order S-3-05 of reducing greenhouse gases to 80 percent below 1990 levels by 2050, in contrast to AB 32's mandate to return to 1990 emission levels by 2020, the 2050 target is not mandated by law and constitutes an aspirational goal set by the California Executive Branch. However, the *Climate Change Scoping Plan* recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the 2050 target: "These [greenhouse gas emission reduction] measures also put the state on a path to meet the long-term 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to help stabilize the climate."¹⁴~~

California courts have upheld a significance threshold defined as the reduction below the BAU level of GHG emissions calculated by CARB as necessary to achieve AB 32's mandate. *See Center for Biological Diversity v. California Dept. of Fish & Wildlife*, 62 Cal. 4th 204 (Cal. 2015) (concluding that lead agency's choice to use Assembly Bill 32 consistency criterion does not violate CEQA); *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, 197 Cal. App. 4th 327 (Cal. App. 4th Dist. 2011), review denied by CA Supreme Ct. in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista (Target Corporation)*, 2011 Cal. LEXIS 10785 (Cal. Oct. 19, 2011); see also *Friends of Oroville v. City of Oroville*, 218 Cal. App. 4th 1352 (Cal. App. 3rd Dist. 2013) (finding that a threshold achieving AB 32's mandate, or a reduction of approximately 15.8 percent from BAU, was a valid method to judge the significance of the project's GHG emissions impacts).¹⁵ As indicated below, this section calculates and

¹⁴ *Climate Change Scoping Plan* at 15.

¹⁵ *The Second Appellate District Court also has upheld the use of this threshold of significance and has noted that the legality of this methodology has been clearly established by the aforementioned cases: "Standards concerning baseline determinations are clearly established. Already, two Court of Appeal decisions have held Health and Safety Code section 38550 may serve as the basis for a significance determination. Health and Safety Code section 38550 is part of Assembly Bill No. 32 (2005-2006 Reg. Sess)." Court of Appeal of California, Second Appellate District, Recommendation Against Publication (April 7, 2014) (recommending to California Supreme Court that unpublished portion of opinion in *Center for Biological Diversity v. California Department of Fish and Wildlife* (Footnote continued on next page)*

discloses Project GHG emissions against the baseline, existing environmental setting. But this section also uses a comparison of the Project's GHG emissions against expected emissions if the Project were built using BAU design, methodology, and technology. The BAU project GHG emissions calculated herein represent a reliable projection of emissions that accounts for Climate Change Scoping Plan emission reduction measures already in place (e.g., Pavley I Standards and the 33 percent RPS). See *Center for Biological Diversity v. California Dept. of Fish & Wildlife*, 62 Cal. 4th 204, 225 (Cal. 2015) ("The business-as-usual emissions model is used here as a comparative tool for evaluating efficiency and conservation efforts, not as a significance baseline. ... Using a hypothetical scenario as a method of evaluating the proposed project's efficiency and conservation measures does not violate Guidelines section 15125 or contravene our decision in *Communities for a Better Environment*."). Moreover, the BAU project GHG emissions were calculated via CalEEMod, which is a computer model jointly developed by the SCAQMD (Southern California Air Quality Management District) to quantify potential GHG emissions associated with both the construction and operation of land use projects.

The disclosure of a project's mass GHG emissions, while necessary under CEQA, generally does not provide lead agencies with enough relevant data to permit informed decision-making. Given the global nature of climate change, selection of a mass-based GHG emissions significance threshold for an individual project likely would be speculative and not supported by substantial evidence.

As population growth appears inevitable and economic growth is both likely and desirable, a comparison to BAU is a more useful tool for lead agencies to assess the relative carbon intensity and efficiency of a particular project. In other words, unless a lead agency assumes California will experience no economic growth in the future, the key consideration is not a CEQA project's raw GHG emissions, but rather what amount of economic development and activity would accompany those emissions.

While the notion of statewide BAU used in CARB's Climate Change Scoping Plan is not directly applicable at local or regional scales,¹⁶ the SCAQMD recommends use of CARB's definition of BAU until such time as a SCAQMD or local definition of BAU is developed.¹⁷ Use of AB 32's GHG emissions reduction mandate at the project-level allows a comparison of GHG intensities to be made, which can inform a lead agency's determination of whether an individual CEQA project is consistent with the State's drive toward a more carbon efficient future. Moreover, use of AB 32's GHG emissions reduction mandate also provides a carefully crafted tool supported by substantial evidence (e.g., studies and analyses relied on by CARB in its adoption of and updating to the *Climate Change Scoping Plan*) to assess the contribution to climate change of a particular project. As explained in more detail below, the GHG emission reduction measures in the *Climate Change Scoping Plan* put California on a path to meet the long-term GHG emissions reduction goal necessary to stabilize the climate (i.e., avoiding a 2° C increase in global average temperatures). Accordingly, this tool is directly linked with consideration of the GHG emissions and temperature increases most often associated with climate impacts. ~~The BAU project GHG emissions calculated herein do not constitute an improper hypothetical CEQA baseline that has not occurred or is unlikely to occur in the future. Rather, the~~

(Case Number B245131) remain unpublished). This Recommendation Against Publication and the related opinion are attached as appendices hereto in Appendix E.

¹⁶ *The statewide BAU is based on historic trends across entire economic sectors, not the activity of local governments or individual projects (i.e., it is a top-down estimate of anticipated future emissions).*

¹⁷ *SCAQMD, Draft Guidance Document-Interim CEQA GHG Significance Threshold, Attachment E, October 2008.*

~~BAU project GHG emissions calculated herein represent a reliable projection of emissions that accounts for *Climate Change Scoping Plan* emission reduction measures already in place (e.g., Pavley I Standards and the 33 percent RPS). Moreover, the BAU project GHG emissions were calculated via CalEEMod, which is a computer model jointly developed by the SCAQMD to quantify potential GHG emissions associated with both the construction and operation of land use projects.~~

~~The notion of statewide BAU used in CARB's *Climate Change Scoping Plan* is not directly applicable at local or regional scales. Nevertheless, the SCAQMD recommends use of CARB's definition of BAU until such time as a SCAQMD or local definition of BAU is developed.¹⁸ The statewide BAU is based on historic trends across entire economic sectors, not the activity of local governments or individual projects (i.e., it is a top-down estimate of anticipated future emissions).~~

As established and explained in more detail in the Technical Letter from Ramboll Environ dated February 3, 2016 and attached as Errata 2 Appendix B-1,¹⁹ the utilization of the statewide reduction from BAU as a threshold of significance represents both a conservative and logical approach to analyzing project-level GHG emissions from new development, including the Project's emissions. Indeed, as (1) the land-use driven sector will be required to reduce GHG emissions less, on a relative basis, than the state overall to achieve California's emission reduction goals, (2) the Climate Change Scoping Plan does not contemplate requiring new land use to somehow compensate for the GHG emissions from existing land use, but rather contemplates measures targeting significant emissions reductions from existing land use, and (3) the fact that the SCAG region, in which the Project is located, is anticipated to meet and exceed its fair share of GHG emission reductions to 2040, a reduction from BAU considerably below the statewide target would be appropriate as a threshold of significance. Nonetheless, this EIR conservatively adopts the statewide reduction target and utilizes it to assess the Project's consistency with AB 32.

Consequently, evaluating the proposition that a project constitutes a break from BAU requires providing a quantitative estimate of BAU based on the specific circumstances of the project in the context of relevant State activities and mandates. This essentially requires three GHG emissions inventories (as follows):

- Baseline, existing environmental setting, GHG emissions;
- BAU project GHG emissions; and
- "As proposed" project GHG emissions with project design features.

4. Volume 1, Section 4.E.3(b) regarding Thresholds of Significance, Page 4.E-30. Add the following information at the end of the section, following the bullet at the top of the page as follows:

As indicated above, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

¹⁸ SCAQMD, *Draft Guidance Document-Interim CEQA GHG Significance Threshold, Attachment E, October 2008.*

¹⁹ Ramboll Environ, *Evaluation of the AB 32 Scoping Plan Business-As-Usual Threshold for the Crescent Heights Palladium Project – Hollywood, California, February 2016.*

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.²⁰ To qualify, such a plan or program 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.²¹ Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."²² Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with plans, programs, and regulations to reduce GHG emissions, such as the California Cap-and-Trade Program or a RTP/SCS. See *Center for Biological Diversity v. California Dept. of Fish & Wildlife*, 62 Cal. 4th 204, 229 (Cal. 2015) ("a lead agency might assess consistency with Assembly Bill 32's goal in whole or in part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities.") (citing CEQA Guidelines Section 15064(h)(3)).

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has taken this approach via the adoption of a policy to provide guidance to SJVAPCD staff on how to determine significance of GHG emissions from projects subject to the Cap-and-Trade Program or occurring at entities subject to the Cap-and-Trade Program.²³ By its terms, this policy applies both when the SJVAPCD is the lead agency and when it is a responsible agency under CEQA. The SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA...."²⁴ Other pertinent statements in the SJVAPCD policy are as follows:

Consistent with [14] CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change. ... The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change.²⁵

In sum, the SJVAPCD modified its existing CEQA significance threshold for GHG emissions to acknowledge the progress being made by the state in regulating and reducing such emissions, in particular with regard to the Cap-and-Trade Program.

As described in more detail above, the design of the Cap-and-Trade Program assures reductions in GHG emissions. Accordingly, a project's GHG emissions subject to the Cap-and-Trade Program should neither

²⁰ 14 CCR § 15064(h)(3).

²¹ *Id.*

²² *Id.* (emphasis added).

²³ *San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR – 2030 (June 25, 2014).*

²⁴ *Id.* at 4.

²⁵ *Id.* at 4-5.

count against a project when assessing its significance under CEQA nor require further mitigation. In its recently adopted policy, the SJVAPCD has taken the same position on the mitigation provided by the Cap-and-Trade Program:

*[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation. ... [T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated.*²⁶

Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO₂e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold.²⁷

5. Volume 1, Section 4.E Greenhouse Gas Emissions, 3.c(1) Land Use Characteristics, Page 4.E-30. Add a reference to newly provide CAPCOA information at the end of the fourth paragraph in the section as follows:

For reference purposes, selected pages from the CAPCOA guidance related to the discussion of VMT, including pages that discuss the land use transportation measures that would reduce Project VMT, are provided in Appendix B-1 of the EIR Errata. The full CAPCOA guidance document is available for download on the internet at the following address: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

6. Volume 1, Section 4.B Greenhouse Gas Emissions, 3.c(2) Project Design Features, Page 4.E-33. Revise PDF-GHG-1 as follows:

PDF-GHG-1: Construction Measures: The Project shall utilize off-road diesel-powered construction equipment that meet or exceed the CARB and USEPA ~~Tier 3~~ Tier 4 off-road emissions standards for ~~those~~ equipment rated at 50 hp or greater during ~~the grading, concrete pouring and building construction phases of~~ Project construction. Pole power (electricity delivered from the utility grid) shall be the primary source of power for use with on-site electric tools, equipment, lighting, etc., except where/when infeasible due to site constraints; diesel generators, if needed, shall be rated between

²⁶ San Joaquin Valley Air Pollution Control District, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR – 2030*, at 5 (June 25, 2014).

²⁷ SCAQMD, *Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project, SCH No. 2012041014 (October 2014)*(available at http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/ultramar_neg_dec.pdf?sfvrsn=2); SCAQMD, *Final Negative Declaration for: Phillips 66 Los Angeles Refinery Carson Plant - Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014)*(available at <http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf?sfvrsn=2>); *Final Mitigated Negative Declaration for: Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014)*(available at http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/exide-mnd_final.pdf?sfvrsn=2); *Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No: 2014121014 (April 2015)*(available at <http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2015/deir-breitburn-chapters-1-3.pdf?sfvrsn=2>).

75 horsepower (hp) and 750 hp and meet or exceed applicable Tier 4 standards. Total diesel generator usage during construction shall not exceed 312,000 horsepower-hours. Cranes and concrete pumps shall be electrified with pole power. The Project shall utilize on-road haul trucks that meet or exceed the model year 2010 emission standards. These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment.

7. Volume 1, Section 4.B Greenhouse Gas Emissions, 3.c(2) Project Design Features, Page 4.E-33. Revise PDF-GHG-2 by adding the following design features after the last bullet item in the current list:

- No on-site car washing facilities will be provided;
- Pools/Spas will be heated by natural gas;
- An online portal will be provided to include message board or other tools to organize ridesharing programs;
- On-site residents will be provided LADOT and Metro regional transit information;
- The Project will install solar panels on at least 1,300 square feet of roof-top space and/or equipment;
- The Project will include 40 electric vehicle (EV) chargers, that would be capable of servicing 80 parking spaces, within parking areas.

8. Volume 1, Section 4.E.3.a.(2) regarding Project impacts on Greenhouse Gas Emissions, Pages 4.E-38. Add new discussion regarding Consistency with Executive Orders S-3-05 and B-30-15 at the end of the last paragraph on Page 4.E-38 as follows:

(a) Consistency with Executive Orders S-3-05 and B-30-15]

At the state level, Executive Orders S-3-05 and B-30-15 are orders from the State's Executive Branch for the purpose of reducing GHG emissions. Executive Orders S-3-05's goals to reduce GHG emissions to 1990 levels by 2020 were codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). As analyzed above, the Project is consistent with AB 32. Therefore, the Project does not conflict with this component of the Executive Orders.

The Executive Orders also establish the goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. These goal have not yet been codified.²⁸ However, studies have shown that, in order to meet the 2030 and 2050 targets, aggressive technologies in the transportation

²⁸ *But see Senate Bill (SB) 32, which will be considered by the State Legislature in January 2016, would codify the interim goal set forth in Executive Order B-30-15 for GHG emissions levels to be 40 percent below 1990 levels by 2030.*

and energy sectors, including electrification and the decarbonization of fuel, will be required. In its Climate Change Scoping Plan, CARB acknowledged that the “measures needed to meet the 2050 are too far in the future to define in detail.”²⁹ In the First Update, however, CARB generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.”³⁰ Due to the technological shifts required and the unknown parameters of the regulatory framework in 2030 and 2050, quantitatively analyzing the Project’s impacts further relative to the 2030 and 2050 goals currently is speculative for purposes of CEQA. Moreover, ARB has not calculated and released the BAU emissions projections for 2030 or 2050, which are necessary data points for quantitatively analyzing a CEQA project’s consistency with these targets.

Although the proposed Project’s emissions levels in 2030 and 2050 cannot yet be reliably quantified, statewide efforts are underway to facilitate the State’s achievement of those goals and it is reasonable to expect the proposed Project’s emissions level (8,905 metric tonnes of CO₂e per year for currently proposed Option 1) to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the proposed Project’s emissions total at build-out presented in Table 4.E-3 on page on Page 4.E-37 of the Draft EIR, represents the maximum emissions inventory for the Project as California’s emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State’s environmental policy objectives. As such, given the reasonably anticipated decline in proposed Project emissions once fully constructed and operational, the proposed Project is consistent with the Executive Orders’ goals.

The Climate Change Scoping Plan recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: “These [greenhouse gas emission reduction] measures also put the state on a path to meet the long-term 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate.”³¹ Also, CARB’s First Update provides that it “lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050,” and many of the emission reduction strategies recommended by CARB would serve to reduce the proposed Project’s post-2020 emissions level to the extent applicable by law:^{32,33}

- **Energy Sector:** Continued improvements in California’s appliance and building energy efficiency programs and initiatives, such as the State’s zero net energy building goals, would serve to

²⁹ CARB, *Scoping Plan*, p. 117, December 2008.

³⁰ CARB, *First Update*, p. 32, May 2014.

³¹ *Climate Change Scoping Plan* at 15.

³² CARB, *First Update*, p. 4, May 2014. See also *id.* at pp. 32–33 [recent studies show that achieving the 2050 goal will require that the “electricity sector will have to be essentially zero carbon; and that electricity or hydrogen will have to power much of the transportation sector, including almost all passenger vehicles.”]

³³ CARB, *First Update*, Table 6: Summary of Recommended Actions by Sector, pp. 94-99, May 2014.

reduce the proposed Project's emissions level.³⁴ Additionally, further additions to California's renewable resource portfolio would favorably influence the proposed Project's emissions level.³⁵

- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the proposed Project's emissions level.³⁶
- **Water Sector:** The proposed Project's emissions level will be reduced as a result of further enhancements to water conservation technologies.³⁷
- **Waste Management Sector:** Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the proposed Project's emissions level.³⁸

While the 2020 cap would remain in effect post-2020,³⁹ the Cap-and-Trade Program is not currently scheduled to extend beyond 2020 in terms of additional GHG emissions reductions. However, ARB has expressed its intention to extend the Cap-and-Trade Program beyond 2020 in conjunction with setting a mid-term target. The "recommended action" in the First Update to the Climate Change Scoping Plan for the Cap-and-Trade Program is: "Develop a plan for a post-2020 Cap-and-Trade Program, including cost containment, to provide market certainty and address a mid-term emissions target."⁴⁰ The "expected completion date" for this recommended action is 2017.⁴¹

In addition to CARB's First Update, in January 2015, during his inaugural address, Governor Jerry Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions: (1) increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030; (2) cutting the petroleum use in cars and trucks in half; and (3) doubling the efficiency of existing buildings and making heating fuels cleaner.⁴² These expressions of Executive Branch policy may be manifested in adopted legislative or regulatory action through the state agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.

Recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to

³⁴ CARB, *First Update*, pp. 37-39, 85, May 2014.

³⁵ CARB, *First Update*, pp. 40-41, May 2014.

³⁶ CARB, *First Update*, pp. 55-56, May 2014.

³⁷ CARB, *First Update*, p. 65, May 2014.

³⁸ CARB, *First Update*, p. 69, May 2014.

³⁹ California Health & Safety Code § 38551(a) ("The statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed.").

⁴⁰ CARB, *First Update to the Climate Change Scoping Plan: Building on the Framework*, at 98 (May 2014).

⁴¹ *Id.*

⁴² Transcript: Governor Jerry Brown's January 5, 2015, Inaugural Address, www.latimes.com/local/political/la-me-pc-brown-speech-text-20150105-story.html#page=1, accessed March 2, 2015.

achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2030 and 2050 targets.⁴³

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends, such as the increasing importance of web-based shopping, the emergence of different driving patterns by the "millennial" generation and the increasing effect of Web-based applications on transportation choices, are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years, and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions.

In its Draft Program Environmental Impact Report (PEIR), SCAG evaluated the 2016 RTP/SCS in terms of meeting AB 32 GHG emission reduction goals and SB 375 emission targets, and determined if the trajectory of the SB 375 GHG emission reductions for the 2016 RTP/SCS would be consistent with the trajectory of the State's long-term (i.e., 2050) GHG emission reduction goals as set forth in Executive Order S-3-05, Executive Order B-16-2012, and Executive B-30-15, as well as the accelerated GHG emission reduction timeline of Executive Order B-30-15.

The Draft PEIR accounts for growth (i.e., new land uses) when evaluating consistency with the state's long-term GHG emission reduction goals: "Between 2015 and 2040, the region is anticipated to experience substantial increases in population, households and jobs.... [T]he Plan focuses new growth and development in existing urbanized areas and opportunity areas such as the high quality transit corridors (HQTAs) and incorporates strategies to increase walking, biking, or other forms of active transportation." The Draft PEIR projects that the 2016 RTP/SCS would decrease per capita emissions 8 percent by 2020, 18 percent by 2035, and 22% by 2040. These reductions would fulfill and exceed the Plan's portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

The Draft PEIR explains that the SCAG region will meet and exceed its fair share of GHG emission reductions, as established by CARB:

"By meeting the SB 375 targets, the Plan has contributed its share, if not greater, to meeting the AB 32 targets. The Plan has demonstrated that it met and exceeded CARB's targets for greenhouse gas emissions from light-duty passenger vehicles for 2020 and 2035, respectively. Specifically, as shown in Figure 3.8.4-1, the Plan is showing a GHG emission reduction trajectory

⁴³ *Energy and Environmental Economics (E3), "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158-172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80% below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation, and electricity sectors.*

that would meet and exceed SB 375 between 2020 and 2040, and beyond. Given that the primary statutory responsibility of the 2016 RTP/SCS is to achieve SB 375 targets, which it does, and the goals set forth by AB 32 are intended to be achieved by all the responsible sectors, the Plan has successfully contributed its share, if not greater, to meeting the AB 32 target. Additionally, 'California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32.' [Citing First Update to the Climate Change Scoping Plan] The compact land use patterns of the Plan provide more efficient use of water and energy of building operations, among others. This efficiency leads to GHG emissions reduction beyond SB 375 and ensures the region to be on track with AB 32 goals. The assurance for meeting statewide AB 32 goals as outlined in the Plan as well as in the First Update to the Climate Change Scoping Plan provide a pathway towards meeting the State's long-term GHG emissions reduction goals as set forth in Executive Orders."⁴⁴

The Draft PEIR elaborates on the 2016 RTP/SCS's consistency with the state's long-term goals:

"The 2016 RTP/SCS is currently required to meet the GHG reduction targets set by CARB, i.e., 8% reduction by 2020 and 13% by 2035, both on per capita basis relative to 2005 levels. The GHG reduction trajectory of the 2016 RTP/SCS is consistent with and is more aggressive than the ARB GHG Reduction Target Trajectory for the SCAG region, as the Plan's trajectory shows aggressive GHG reductions between 2020 and 2040 (Figure 3.8.4-1). It should be noted that CARB has not established a 2030 target or a 2050 target for the transportation sector to meet the targets set by EO B-30-15, EO B-16-2012, and EO S-3-05. However, the new statewide interim 2030 target set forth under EO B-30-15 suggests that an accelerated timeline would be necessary. In order to address this new interim 2030 target, the 2016 RTP/SCS accelerates the reduction of GHG emissions such that by 2030, the Plan is expected to achieve a 14.7% reduction. This reduction would exceed SCAG's current target of 13% by 2035.

In addition, by 2040, the horizon year of the 2016 RTP/SCS, the Plan is expected to achieve a 22% reduction in the GHG emissions of cars and light trucks. As shown on Figure 3.8.4-1, the 2016 RTP/SCS has met and exceeded the CARB's targets for 2020 and 2035, respectively. The GHG reduction trajectory of the 2016 RTP/SCS is much more aggressive than CARB's targets between 2020 and 2035. Additionally, the GHG reduction trajectory of the 2016 RTP/SCS beyond 2030 is consistent, if not more aggressive, with the accelerated pace established in the recent Executive Order B-30-15. Further, it should be noted that the goals set forth by AB 32 and the Executive Orders are intended to be achieved by all the responsible sectors. Yet, the 2016 RTP/SCS is demonstrated to contribute the Plan's share, if not more, comparing to the accelerated pace."⁴⁵

In sum, the 2016 RTP/SCS would ensure the SCAG region is doing more than its fair share to meeting the short-term (2020) and long-term (2030 and 2050) AB 32 GHG emission reduction targets.

⁴⁴ Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 3.8-39.

⁴⁵ Southern California Association of Governments, Draft Program Environmental Impact Report – 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 3.8-40, 41.

For the reasons described above, the proposed Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the establishment of the 2030 and 2050 targets.

9. Volume 1, Section 4.E.4 regarding Cumulative Impacts on Greenhouse Gas Emissions, Page 4.E-41. Add the following information regarding CEQA Section 15064(h)(3) at the end of the Section as follows:

Consistent with CEQA Guidelines Section 15064(h)(3), this section also provides a qualitative estimate of the Project's compliance with plans, programs, and regulations that reduce a project's GHG emissions either directly or indirectly, including: the California Cap-and-Trade Program; the California Green Building Standards Code; SCAG's 2012-2035 RTP/SCS; the City of Los Angeles Green Building Code; and Green LA, An Action Plan to Lead the Nation in Fighting Global Warming. As described above, the Project would comply with State, regional, and local plans, programs, and regulations that reduce GHG emissions. Indeed, many Project-related emissions would be capped in the aggregate and steadily reduced by the Cap-and-Trade Program, such as energy, mobile, and construction emissions.⁴⁶ Therefore, per CEQA Guidelines Section 15064(h)(3), the Project's impacts with respect to GHG emissions would be less than significant and not cumulatively considerable.

As discussed on pages 4.E-18, -19, and -38 in Section 4.E, *Greenhouse Gas Emissions*, of the Draft EIR, the Project would be consistent with the City of Los Angeles *Green LA, And Action Plan to Lead the Nation in Fighting Global Warming* (Green LA Plan).⁴⁷ The Green LA Plan outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. Supplemental information is included herein to provide additional support contained in the Draft EIR regarding the Project's consistency with applicable Green LA Plan actions. **Table 4.E-4, *Consistency with Applicable GHG Emissions Goals and Actions***, provides a discussion of the Project's consistency with the GHG-reducing actions from the Green LA Plan. As discussed below, the Project is consistent with the applicable goals and actions of the Green LA Plan.

Consistent with the SCAG's RTP/SCS alignment of transportation, land use, and housing strategies, the Project would accommodate for increases in population, households, employment, and travel demand by implementing smart land use strategies. As discussed on pages 4.B-35 through -38 in Section 4.B, *Air Quality*, and on pages 4.E-30 through -33 in Section 4.E, *Greenhouse Gas Emissions*, of the Draft EIR, the Project would be located at an infill location close to jobs, shopping and entertainment uses and in close proximity to existing and future public transit stops, which would result in reduced vehicle trips and VMT, as compared to a project of similar size and land uses at a location without close access to off-site destinations and public transit stops. The Project is estimated to achieve a reduction in VMT of approximately 29 percent compared to a project consisting of the same land uses but without close access to off-site destinations and public transit stops.

⁴⁶ See also Section 4.H, *Land Use and Planning* for additional relevant analyses of the Project's consistency with other regulatory plans and policies that are pertinent to the general concepts of "smart growth," environmental sustainability, and the efficient use of resources.

⁴⁷ City of Los Angeles, *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming*, (2007).

Table 4.E-4

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
Green LA Plan – Focus Area: Energy		
<p><u>E1</u> Meet the goal to increase renewable energy from solar, wind, biomass, and geothermal sources to 20 percent by 2010.</p>	<p>The LADWP's RPS goal is one example of the Department's environmental leadership. This goal calls for an increase in the supply of electricity from eligible renewable resources to 20% by December 31, 2010, and 35% by 2020. Reducing the amount of electricity generated by fossil fueled power plants will result in direct, real reductions in greenhouse emissions.</p>	<p>Not Applicable. This action applies to LADWP and other utility providers and does not apply to the Project. LAWDP has achieved the 20 percent by 2010 target. The Project would not conflict with or impede the City's ability to implement this action.</p>
<p><u>E2</u> Increase use of renewable energy to 35 percent by 2020.</p>	<p>See E1, above.</p>	<p>See E1, above.</p>
<p><u>E3</u> Reduce the use of coal-fired power plants.</p>	<p>Reducing the amount of electricity produced by coal, the most greenhouse gas intensive of the fossil fuels, will reduce the CO₂ intensity of LADWP's power mix.</p>	<p>Not Applicable. This action applies to LADWP and other utility providers and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</p>
<p><u>E4</u> Increase the efficiency of natural gas-fired power plants.</p>	<p>The LADWP plans to replace four steam boiler electric generating units with advanced gas turbines. Replacing old generating units with more efficient generating units will reduce the amount of natural gas burned per unit of electric energy produced, and will therefore reduce GHG emissions from the combustion of natural gas.</p>	<p>Not Applicable. This action applies to LADWP and other utility providers and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</p>
<p><u>E5</u> Increase biogas co-firing of natural gas-fired power plants.</p>	<p>The combustion of biogas will displace a portion of natural gas usage at power plants, thus reducing GHG emissions. The following represent the City's major projects to more fully utilize biogas emissions.</p>	<p>Not Applicable. This action applies to LADWP and other utility providers and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</p>
<p><u>E6</u> Present a comprehensive set of green building policies to guide and support private sector development.</p>	<p>The City embarked on an effort to establish green building requirements, paired with incentives, for medium- to large-private projects. Buildings account for a majority of electricity use. Each building site is a microcosm of the environmental issues faced by the City, so addressing each site in a comprehensive manner will provide a variety of environmental benefits.</p>	<p>Consistent. The Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the USGBC LEED Silver Certification level or its equivalent. The Project would incorporate numerous energy efficiency measures beyond City of Los Angeles and statewide regulatory</p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<p><u>E7</u> <u>Reduce energy use by all City departments to the maximum extent feasible.</u></p>	<p><u>This measure seeks to reduce energy use associated with the operation of streetlights and traffic signals by replacing lights with energy-efficient lighting sources, manage City computers by turning off or placing in standby computers when they are not in use, and implementing other energy saving measures.</u></p>	<p><u>requirements as defined in PDF-GHG-2 of the Draft EIR and supplemented in Errata 2. As a result, the Project would be consistent with City’s green building policies.</u></p> <p>Consistent. While this action applies to City departments, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the USGBC LEED Silver Certification level or its equivalent. The Project would incorporate numerous energy efficiency measures beyond City of Los Angeles and statewide regulatory requirements as defined in PDF-GHG-2 of the Draft EIR and supplemented in Errata 2 . As a result, the Project would be consistent with the City’s action to reduce energy use.</p>
<p><u>E8</u> <u>Complete energy efficiency retrofits of all City-owned buildings to maximize energy efficiency and reduce energy consumption.</u></p>	<p><u>For several years, the City has been meeting aggressive environmental standards for its new construction program, but has now also identified energy saving opportunities for 497 of the existing Council-controlled buildings that it owns and operates.</u></p>	<p>Consistent. While this action applies to City-owned buildings, the Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the USGBC LEED Silver Certification level or its equivalent. The Project would incorporate numerous energy efficiency measures beyond City of Los Angeles and statewide regulatory requirements as defined in PDF-GHG-2 of the Draft EIR and supplemented in Errata 2. As a result, the Project would be consistent with the City’s action to reduce energy use.</p>
<p><u>E9</u> <u>Install the equivalent of 50 “cool roofs” on new or remodeled City buildings.</u></p>	<p><u>Designed with high albedo (reflectivity) to reflect the sun’s heat, cools roofs can provide energy saving to buildings and also help reduce the urban heat island effect. Green or vegetated roofs provide the same benefits, with the additional benefits of green space and reduced</u></p>	<p>Consistent. While this action applies to City-owned buildings, the Project would include approximately 37,300 square feet of landscaped area on the rooftops.. The remaining roof-top areas would use high-albedo/reflective roofs such as light-colored, build-up “white” roofs to reduce energy loads</p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<p><u>E10</u> <u>Install solar heating for all City-owned swimming pools.</u></p>	<p><u>stormwater runoff.</u></p> <p><u>The City has determined this measure to be infeasible because the majority of City-owned pools are seasonal and therefore not heated and the costs to retrofit the pools to operate on electricity would be extremely prohibitive. The City also found that the pools that are heated (by natural gas) are covered to retain heat, which is the most cost-effective method for heating the pools.</u></p>	<p><u>and the urban heat-island effect (see in PDF-GHG-2 as drafted in the Draft EIR and supplemented in Errata 2).</u> <u>Moreover, the Project would install solar panels on at least 1,300 square feet of roof-top space and/or equipment. The Project would be consistent with the City's action to install cool roofs on new buildings.</u></p> <p>Consistent. <u>While this action has been determined to be infeasible for City-owned pools, the Project would be equipped with a pool and spa that would be consistent with the City's actions with respect to heating. The Project pool and spa would be heated by natural gas.</u></p>
<p><u>E11</u> <u>Improve energy efficiency at drinking water treatment and distribution facilities.</u></p>	<p><u>This action is intended to reduce the amount of electricity used for water pumping and water treatment, thus leading to reduced GHG emissions from fossil-fueled electric power plants.</u></p>	<p>Not Applicable. <u>This action applies to LADWP and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</u></p>
<p><u>E12</u> <u>Maximize energy efficiency of wastewater treatment equipment.</u></p>	<p><u>The City of Los Angeles Bureau of Sanitation can employ direct action/s to reduce energy usage, including: a) investigate and test modifications to treatment processes that could reduce wastewater volume, electricity, and/or natural gas usage; or increase the production of biogas, which is used to produce electricity; and b) research the availability of more energy-efficient treatment equipment.</u></p>	<p>Not Applicable. <u>This action applies to City of Los Angeles Bureau of Sanitation and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</u></p>
<p><u>E13</u> <u>Distribute two compact fluorescent light (CFL) bulbs to each of the 1.4 million households in the City.</u></p>	<p><u>To reduce energy consumption and related CO₂ emissions, the LADWP will purchase 2.4 million compact fluorescent light bulbs (CFLs) and distribute two bulbs to each of the City's 1.2 million households.</u></p>	<p>Consistent. <u>While this action applies to LAPWD, the Project would incorporate energy efficiency measures defined in PDF-GHG-2, which includes lighting controls with occupancy sensors to take advantage of available natural light. The Project would also utilize energy efficient lighting, such as CFLs, light emitting diodes (LEDs), or other energy efficient lighting technology. The Project would be consistent with the</u></p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<p><u>E14</u> <u>Increase the level and types of customer rebates for energy efficient appliances, windows, lighting, and heating and cooling systems.</u></p>	<p><u>Through implementation and aggressive promotion of existing non-residential energy efficiency programs in LADWP's service territory, energy consumption and related GHG emissions will continue to be reduced. LADWP will work closely with professional organizations, chambers of commerce, contractors, and vendors to promote energy efficiency and encourage businesses to retrofit with new efficient technologies.</u></p>	<p><u>City's action to provide energy efficient lighting to City residents.</u></p> <p>Consistent. While this action applies to LAPWD, the Project would incorporate energy efficiency measures defined in PDF-GHG-2, which includes energy efficient lighting, lighting controls with occupancy sensors, energy efficient appliances, energy efficient windows, and energy efficient HVAC systems. The Project would be consistent with the City's action to encourage building energy efficiency.</p>
<p><u>E15</u> <u>Increase the distribution of energy efficient refrigerators to qualified customers.</u></p>	<p><u>To facilitate energy conservation among customers who receive low-income rate assistance (Rates 06 and 86), LADWP intends to offer up to 50,000 new energy-efficient refrigerators, in exchange for the customers' older, less-efficient refrigerators.</u></p>	<p>Consistent. While this action applies to LADWP, the Project would incorporate energy efficiency measures defined in PDF-GHG-2, which includes energy efficient appliances. The Project would be consistent with the City's action to provide energy efficient appliances to City residents.</p>
<p><u>E16</u> <u>Create a fund to "acquire" energy savings as a resource from LADWP customers.</u></p>	<p><u>To expand energy saving opportunities, the establishment of a fund was proposed that would reward LADWP customers for additional conservation efforts. Such efforts will reduce the amount of electric energy generated by fossil-fueled electric power plants, which will in turn reduce GHG emissions.</u></p>	<p>Not Applicable. This action applies to LADWP and does not apply to the Project. The Project would not conflict with or impede the City's ability to implement this action.</p>
<p>Green LA Plan – Focus Area: Water</p>		
<p><u>W1</u> <u>Meet all additional demand for water resulting from growth through water conservation and recycling.</u></p>	<p><u>The Mayor's Office and LADWP developed the <i>Securing LA's Water Future</i> plan, which is an aggressive, multi-faceted approach to developing a locally sustainable water supply. The plan includes a set of key short-term and long-term strategies to secure our water future, such as:</u></p> <p><u>Short-Term Conservation Strategies:</u></p> <p><u>Enforcing prohibited uses of water (levying fines and sanctions against water abusers and increase water conservation awareness).</u></p>	<p>Consistent. While this action primarily applies to the City and LADWP, the Project would incorporate water efficiency measures defined in PDF-WS-1. The Project would reduce overall potable water use by 30 percent. The reductions would be achieved through the installation of water efficient fixtures that exceed applicable standards, drought-tolerant/California native plant species selection, irrigation system efficiency, stormwater retention for use in landscaping, and smart irrigation systems (e.g., weather-based controls).</p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
	<p><u>Expanding the list of prohibited uses of water (possible further restrictions on watering landscape and washing/rinsing vehicles without a self-closing nozzle).</u></p> <p><u>Extending outreach efforts, water conservation incentives, and rebates.</u></p> <p><u>Encouraging regional conservation measures (encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement).</u></p> <p><u>Long-Term Conservation Strategies:</u></p> <p><u>Increasing water conservation through reduction of outdoor water use and new technology.</u></p> <p><u>Maximizing water recycling.</u></p> <p><u>Enhancing stormwater capture</u></p> <p><u>Accelerating clean-up of the groundwater basin.</u></p> <p><u>Expanding groundwater storage.</u></p>	<p><u>The Project would not include facilities for on-site car washing or rinsing. As a result, the Project would be consistent with the applicable short- and long-term water conservation strategies, would reduce per capita water consumption by at least 20 percent, and implement innovative water conservation strategies such as stormwater retention.</u></p>
<p><u>W2</u> <u>Reduce per capita water consumption by 20%.</u></p>	<p><u>See W1, above.</u></p>	<p><u>See W1, above.</u></p>
<p><u>W3</u> <u>Implement the City's innovative water and wastewater integrated resources plan that will increase conservation, and maximize use of recycled water, including capture and reuse of stormwater.</u></p>	<p><u>See W1, above.</u></p>	<p><u>See W1, above.</u></p>
<p>Green LA Plan – Focus Area: Transportation</p>		
<p><u>T1</u> <u>Require 85% of City fleet to be powered by alternative fuels.</u></p>	<p><u>To reduce both air pollution and GHG emissions, City Departments will continue to acquire alternative fuel and advanced technology vehicles to replace those powered by conventional fuels.</u></p>	<p>Consistent. While this action primarily applies to the City and LAWPD, the Project would include 40 electric vehicle (EV) chargers, that would be capable of servicing 80 parking spaces, within parking areas.</p>
<p><u>T2</u> <u>Convert 100% of City refuse collection</u></p>	<p><u>To reduce the use of conventional diesel fuel, reduce GHG and toxic air pollutant</u></p>	<p>Not Applicable. This action applies to the City and does not apply to the</p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<p><u>trucks and street sweepers to alternative fuels.</u></p>	<p><u>emissions, the City will continue to acquire solid resources collection vehicles (for refuse, dead animals, yard trimmings, and commingled recyclable materials) and street sweeper vehicles that are fueled by natural gas, an alternative fuel.</u></p>	<p><u>Project. The Project would not conflict with or impede the City’s ability to implement this action.</u></p>
<p><u>T3 Convert 100% of Metropolitan Transportation Authority (MTA) buses to alternative fuels. Convert 100% of City Department of Transportation (DOT) Commuter Express Diesel Buses to Alternative Fuel.</u></p>	<p><u>In 2011, the Los Angeles County Metropolitan Transportation Authority (Metro) retired its last diesel bus and operates solely on alternative fuels – primarily compressed natural gas (CNG).⁴⁸</u></p>	<p><u>Not Applicable.</u> This action applies to the City and does not apply to the Project. The Project would not conflict with or impede the City’s ability to continue implementation of this action.</p>
<p><u>T4 Complete the Automated Traffic Surveillance and Control System (ATSAC).</u></p>	<p><u>This action reduces vehicle emissions that result from idling at intersections. By reducing vehicle stops, delays and travel time through improved traffic signal timing, vehicles can travel a longer distance at a consistent rate of speed, improving fuel economy.</u></p>	<p><u>Consistent.</u> The Project’s traffic study included an analysis of traffic impacts that considered the ATSAC systems and Adaptive Traffic Control Systems (ATCS), which is an enhancement to ATSAC systems. The Project would also implement mitigation measure MM TRAF-7, which would upgrade traffic signal controllers (see Section 4.L, <i>Transportation and Circulation</i>, of the Draft EIR as amended in Errata 1, page 4-23). As a result, the Project would be consistent with this action.</p>
<p><u>T5 Expand FlyAway shuttles serving Los Angeles International Airport (LAX) and other regional airports, and convert existing FlyAway buses to alternative fuels.</u></p>	<p><u>Providing additional convenient options to air travelers can decrease the number of vehicle trips to and from LAX, thereby decreasing associated GHG emissions. Since the commencement of the Union Station FlyAway service, LAWA has been studying other potential sites, including locations in Long Beach, Norwalk, El Monte, Anaheim and other areas.</u></p>	<p><u>Not Applicable.</u> This action applies to Los Angeles World Airports (LAWA) and does not apply to the Project. The Project would not conflict with or impede the City’s ability to continue implementation of this action.</p>
<p><u>T6 Make transit information easily available,</u></p>	<p><u>A Los Angeles Department of Transportation (LADOT) partnership with the Personnel Department and ELA</u></p>	<p><u>Consistent.</u> The Project would provide new on-site residents with available LADOT and Metro regional</p>

⁴⁸ Los Angeles County Metropolitan Transportation Authority, “Metro Retires Last Diesel Bus, Becomes World’s First Major Transit Agency to Operate Only Clean Fuel buses,” January 12, 2011. Available: https://www.metro.net/news/simple_pr/metro-retires-last-diesel-bus/.

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<u>understandable, and translated into multiple languages.</u>	<u>(Environment LA) will enable DOT to determine in which additional languages transit information should be provided. Facilitating access to transit information increases the likelihood of transit use, which can reduce single occupancy vehicle trips and help alleviate traffic congestion, and most importantly, reduce associated greenhouse gas emissions.</u>	<u>transit information.</u>
<u>T7 Increase the City employee participation in the rideshare program and increase subsidy for use of mass transit.</u>	<u>Employee rideshare programs are intended to reduce the number of single-occupant vehicle trips associated with commuting to the workplace. These programs help reduce traffic, as well as reducing the air pollutants from personal vehicles.</u>	Consistent. <u>The Project would require that on-site residents have access to an online portal to conduct business, which would include a community message board or other tools to organize ridesharing programs.</u>
<u>T8 Promote walking and biking to work, within neighborhoods, and to large events and venues.</u>	<u>Promoting alternate modes of travel will reduce the carbon emissions associated with single occupancy vehicles (SOVs). As described in Action Items LU1 and LU2, the City is promoting high-density and mixed-use housing close to major transportation arteries. Such developments will also support the advancement of Action Item T8, by improving accessibility for those who wish to walk and bike to work.</u>	Consistent. <u>The Project would promote walking and bicycling by providing up to 820 total bicycle parking spaces with lockers for Site employees. In addition, the Project Site would be accessible to pedestrians via the courtyards facing Sunset Boulevard (Sunset Court) and El Centro Avenue (El Centro Court), as illustrated in Figure 2-5 and Figure 2-9 of the Draft EIR. The Project would connect the Palladium’s Sunset Boulevard and west lobby entrances with the Project’s other pedestrian paths and courtyards, thus linking the Palladium with other visitor venues in the Project area. The Project would locate residential uses within an area that has public transit (with access to existing regional bus service and the Metro Red Line Hollywood/Vine Station), and employment opportunities, restaurants and entertainment all within walking distance. As a result, the Project would be consistent with this action.</u>
<u>T9 Expand the regional rail network.</u>	<u>Metro planning calls for investments to expand the Metro Rail system by another 32 miles.</u>	Not Applicable. <u>This action applies to Metro and does not apply to the Project. The Project would not conflict with or impede Metro’s ability to continue implementation of this action.</u>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

<u>Action</u>	<u>Description</u>	<u>Consistency Analysis</u>
Green LA Plan – Focus Area: Land Use		
<p><u>LU1</u> <u>Promote high-density housing close to major transportation stops (same as Action Items LU3 and LU6).</u></p>	<p><u>Promoting higher density housing in areas close to transportation stops is an important component of the City’s General Plan. Higher density housing with good access to transit helps accommodate the City’s growing population and helps relieve traffic congestion, by increasing ridership on public transit.</u></p>	<p>Consistent. <u>The Project Site represents an urban/compact infill location within the Hollywood community of the City of Los Angeles. The Project would be located in a highly walkable area served by frequent and comprehensive transit within a quarter-mile of the Project Site, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Redline. The Project would provide access to on-site uses from existing pedestrian pathways. The Project would also provide parking for approximately 820 bicycles on-site to encourage utilization of alternative modes of transportation. As a result, the Project is consistent with this City action.</u></p>
<p><u>LU2</u> <u>Promote and implement transit-oriented development (TOD).</u></p>	<p><u>Transit Oriented Districts (TODs) represent opportunities for creating cohesive, vibrant, walkable communities where fragmented, auto-dependent corridors now exist. TODs are a positive alternative to low-density traditional land use patterns that typically segregate housing, jobs and neighborhood services from one another. In contrast, TODs cluster these community elements in close proximity, so a greater portion of trips can be made by transit, bike, or on foot.</u></p>	<p>Consistent. <u>The Project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The Project would include on-site retail and residential land uses and would be located within a quarter-mile of off-site commercial and residential uses. The Project would be located in a highly walkable area served by frequent and comprehensive transit within a quarter-mile of the Project Site, including existing Metro bus routes (e.g., 180/181, 217, 2/302, Dash Beachwood, Dash Hollywood) and the Metro Redline. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and vehicle miles traveled by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions. As a result, the Project is consistent with this City action.</u></p>
<p><u>LU3</u> <u>Make available underutilized City</u></p>	<p><u>The City can leverage the value of its real estate assets, whether developed</u></p>	<p>Consistent. <u>While this action applies to City-owned land and facilities, the</u></p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
<p><u>land for housing and mixed-use development.</u></p>	<p><u>and unimproved lands, to further Smart Growth policies such as improving access to transportation, strengthening job/housing linkages, reducing vehicle trips, providing non-traditional open space such as linear networks, and parkland that is built upon freeway covers.</u></p>	<p><u>Project would be consistent. The Project would co-locate complementary commercial and residential land uses in close to proximity to existing off-site commercial and residential uses. The Project would be located in an area accessible to alternative forms of transportation including walking, bicycling, and transit. The Project would include approximately 33,800 square feet of publicly accessible, outdoor amenities for Project Site visitors and pedestrians in street level courtyards, highlighted with landscaping features. The Project further includes roof-top terraces with approximately 37,300 square feet of landscaped area. As a result, the Project is consistent with this City action.</u></p>
<p><u>LU4 Make available underutilized City land for parks and open space.</u></p>	<p><u>See LU3, above.</u></p>	<p><u>See LU3, above.</u></p>
<p><u>LU5 Clean up brownfields sites for community economic revitalization projects and open space.</u></p>	<p><u>Brownfields are a tremendous resource—open space in the urban core—available for redevelopment as projects, many of which confer public benefits. Each brownfield site that is successfully redeveloped can result in improved utilization of existing infrastructure, such as transit, and a concomitant decrease in vehicle trips. Brownfields can also be turned into urban parks, thereby expanding our urban forest.</u></p>	<p>Not Applicable. <u>The Project is not a brownfield site. The Project would not conflict with or impede the City’s ability to implement this action.</u></p>
<p><u>LU6 Make available underutilized City land within 1,500 feet of transit for housing and mixed-use development.</u></p>	<p><u>See LU3, above.</u></p>	<p><u>See LU3, above.</u></p>
<p>Green LA Plan – Focus Area: Waste</p>		
<p><u>WsT1 Reduce or recycle 70% of trash by 2015.</u></p>	<p><u>Source reduction and recycling programs not only conserve natural resources and landfill space, but also</u></p>	<p>Consistent. <u>The Project would be served by a solid waste collection and recycling service that may include mixed waste processing, and that</u></p>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
	<u>confer climate benefits.</u>	<u>yields waste diversion results comparable to source separation and consistent with Citywide recycling targets. According to the City of Los Angeles Zero Waste Progress Report (March 2013), the City achieved a landfill diversion rate of approximately 76 percent by year 2012.</u>
Green LA Plan – Focus Area: Open Space and Greening		
<u>OS/G1 Create 35 new parks.</u>	<u>Parks and their trees, shrubs and other vegetation help mitigate climate change impacts by absorbing CO₂ and releasing oxygen into the atmosphere.</u>	Consistent. <u>While the Project does not include a park, the Project would provide landscaping and garden uses for the public and on-site residents and visitors. The site would include trees and other landscaping that would provide shading and capture carbon dioxide emissions. Roof-top Terraces would include approximately 37,300 square feet of landscaped area; and additional landscaping would be provided throughout the ground level public open space areas. As a result, the Project would be consistent with this action.</u>
<u>OS/G2 Revitalize the Los Angeles River to create open space opportunities along the 32-mile corridor within the City of Los Angeles.</u>	<u>The primary goal of the Los Angeles River Revitalization Master Plan (LARRMP) is to revitalize the River by restoring some of its ecological functions. Where feasible, projects will enhance the creation and protection of habitat, floodwater retention, groundwater recharge, water quality, and other natural processes.</u>	Not Applicable. <u>The Los Angeles River is not a component of the Project nor is the Project Site adjacent to the Los Angeles River. The Project would not conflict with or impede the City’s ability to implement this action.</u>
<u>OS/G3 Plant 1 million trees throughout Los Angeles.</u>	<u>The Mayor launched the “Million Trees LA” (MTLA) Initiative in September 2006. The initiative is rooted in the idea that natural processes can reduce pollution and transform our city into a sustainable, green city. The one million new trees will provide shade and reduce energy costs, clean the air, absorb the GHGs that cause global warming, capture polluted urban runoff, improve water quality, provide homes for wildlife, and add beauty to neighborhoods.</u>	Consistent. <u>The site would include trees and other landscaping that would provide shading and capture carbon dioxide emissions. Roof-top Terraces would include approximately 37,300 square feet of landscaped area; and additional landscaping would be provided throughout the ground level public open space areas. As a result, the Project would be consistent with this action and help the City to achieve its goal.</u>
<u>OS/G4 Identify opportunities to “daylight” streams.</u>	<u>The “daylighting” of streams—bringing them to above ground channels again—</u>	Not Applicable. <u>The City has not identified feasible projects for the</u>

Table 4.E-4 (Continued)

Consistency with Applicable GHG Emissions Goals and Actions

Action	Description	Consistency Analysis
	<p><u>has been identified as a strategy the City could employ to address new regulatory requirements pertaining to stormwater runoff. The Bureau of Sanitation (BOS), with assistance from the Department of Recreation and Parks (RAP), has submitted many of the grant applications for the daylighting of streams in strategic locations. Specific daylighting projects include the Hazard Park Wetland and Stream Restoration Project and the North Atwater Creek Restoration and Water Quality Enhancement Project. These projects will restore wetlands for stormwater runoff capture and treatment and provide habitat linkage to the Los Angeles River.</u></p>	<p><u>daylighting of streams in dense urban environments such as Hollywood. As a result, this measure is not applicable to the Project. The Project would not conflict with or impede the City's ability to implement this action.</u></p>
<p><u>OS/G5 Identify and develop promising locations for stormwater infiltration to recharge groundwater aquifers.</u></p>	<p><u>Stormwater infiltration is a Best Management Practice (BMP) that mirrors the natural process of infiltration found in undeveloped (or natural) watersheds. Where site conditions allow, a portion of urban stormwater runoff can be managed through infiltration, to effectively increase the volume of water returned to the soil and reduce the volume of direct runoff to streams and sewers. Increased infiltration also improves flood protection and aids in meeting local water demand by helping to recharge (replenish) underground aquifers.</u></p>	<p>Consistent. <u>The Project would incorporate stormwater retention for use in landscaping, which would provide increased infiltration and recharge (replenishment) of underground aquifers. As a result, the Project would be consistent with this action.</u></p>
<p><u>OS/G6 Collaborate and partner with schools to create more parks in neighborhoods.</u></p>	<p><u>See OS/G1, above.</u></p>	<p><u>See OS/G1, above.</u></p>

Source: PCR Services Corporation, 2016

The SCAG 2012 RTP/SCS incorporates regional strategies that would improve accessibility, mobility, sustainability, and environmental quality, which demonstrates reductions in per capita GHG emissions of 9 percent by 2020 and 16 percent by 2035 compared to the 2005 baseline for the SCAG region, which exceeds the targets established by CARB. The Project's estimated VMT reductions would be consistent with regional strategies to reduce transportation-related GHG emissions and would be consistent with and support the

goals and benefits of the SCAG RTP/SCS, which seeks improved “mobility and access by placing destinations closer together and decreasing the time and cost of traveling between them.”⁴⁹ According to SCAG, incorporating “smart land use strategies encourages walking, biking, and transit use, and therefore reduces vehicular demand” and associated pollutants.⁵⁰ Additionally, the SCAG RTP/SCS seeks better “placemaking,” defined as “the process of developing options for locations where [people] can live and work that include a pleasant and convenient walking environment that reduces their reliance on their car.”⁵¹ The high scores for walkability and number of destinations available for non-motorized trips within the Hollywood Community Planning Area (CPA) (as demonstrated by data from the City’s Health Atlas, discussed below) shows that the existing infrastructure and built environment is sufficiently developed that projects located in the area would be expected to achieve substantial and credible reductions in trip distances and overall VMT.

The high employment density of the Hollywood CPA supports the expectation that projects located in the area would provide high levels of walkability and high potential for transit usage by project residents, employees, and visitors. The high number of workers that commute to work by walking, biking, and public transportation in the Hollywood CPA, as cited in the City’s Health Atlas and discussed below, is additional proof that projects located in the area would provide access to more transportation choices for project residents, employees, and visitors and that projects would have a substantially greater level of transportation efficiency when compared to the Citywide and statewide average. The Project would therefore be consistent with the SCAG RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations, provide better “placemaking,” provide more transportation choices, and reduce vehicular demand and associated emissions. As such, the Project would be consistent with regional strategies to reduce VMT and associated GHG emissions.

The SCAG Draft 2016 RTP/SCS is an update to the 2012 RTP/SCS that further integrates land use and transportation in certain areas so that the region as a whole can grow smartly and sustainably. The Project and the Hollywood area in general is located within SCAG identified high quality transit areas (see Exhibit 5.1 of the Draft 2016 RTP/SCS).⁵² According to the Draft 2016 RTP/SCS, focusing new growth around transit results in “expanded transportation choices with ready access to a multitude of safe and convenient transportation alternatives to driving alone – including walking and biking, taking the bus, light rail, commuter rail, the subway and/or shared mobility options.”⁵³ As discussed on pages 4.B-37 and 4.E-32 of the Draft EIR, the Project would be located within a quarter-mile of high-quality public transportation, including existing Metro bus routes (e.g., 180/181, 2/302, 210, 212/312, 217, 222, 780-Rapid, DASH-Hollywood/Wilshire, DASH-Beachwood Canyon) and the Metro Red Line. The Project would also provide up to 820 total bicycle parking spaces with lockers for Site employees. Furthermore, as discussed above, the Project would be located in a highly walkable environment within the Hollywood CPA. These Project

⁴⁹ Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012) 113.

⁵⁰ Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012) 39.

⁵¹ Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012) 112.

⁵² Southern California Association of Governments, Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 71.

⁵³ Southern California Association of Governments, Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2015) 70.

characteristics would be consistent with the Draft 2016 RTP/SCS land use strategies to focus new growth around transit and to provide more transportation options. As a result, the Project would be consistent with the overall goal of the Draft 2016 RTP/SCS to further integrate land use and transportation to plan for smart and sustainable growth and to achieve the state-mandated reductions in GHG emissions through decreases in regional per capita VMT under SB 375, as part of the larger statewide goal to reduce GHG emissions from all sources under AB 32.

The estimated reduction in VMT for the Project is supported by area-specific data in the *Health Atlas for the City of Los Angeles* (Health Atlas), published by the City in June 2013.⁵⁴ Data collected by the City in support of its *Health Atlas for the City of Los Angeles* demonstrates that the Project would be located in an area that would substantially reduce mobile source GHG emissions relative to the Citywide and statewide average and that the Project would be consistent with regional planning efforts to reduce passenger vehicle and light-duty truck VMT and associated emissions. The Health Atlas includes a number of findings related to land use mix and diversity, employment density, walkability, access to public transit, and other land use transportation findings organized by Community Planning Area (CPA). The Project is located in the Hollywood CPA. A summary and analysis of the Health Atlas findings relative to the Hollywood CPA are provided below.

- **Land Use Mix and Land Use Diversity:** According to the Health Atlas, a “mix of land uses can increase walking and other physical activity” and “offer more destinations for non-automobile trips.”⁵⁵ The Health Atlas evaluates land use mix based on a Dissimilarity Index for each census tract and each CPA. The Dissimilarity Index quantifies the area of six different land uses: single family residential, multifamily residential, retail, entertainment, office, and institutional or community serving. Values were normalized on a scale of 0 to 1, with 1 representing an even distribution of the six uses within an area. The Hollywood CPA scored the highest out of the 35 CPAs. The Health Atlas also evaluates land use diversity based on the presence of 19 types of uses or amenities, including supermarkets, convenience stores, banks, gyms, department stores, farmer’s markets, libraries, and parks, grouped into four categories: food retail, community-serving retail, services, civic and community facility. The Hollywood CPA scored the highest out of the 35 CPAs indicating that the area has the highest number of different types of amenities available in the CPA. The data indicates that the Hollywood CPA has a high potential for walkability and offers a high number of destinations available for non-motorized trips.

These findings are substantiated by the CAPCOA guidance, *Quantifying Greenhouse Gas Mitigation Measures*. CAPCOA measure LUT-3 (Increase Diversity of Urban and Suburban Developments [Mixed Use]) states that “different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transport.”⁵⁶ The Health Atlas findings are also related to the goals and benefits of the SCAG RTP/SCS, which seeks improved “mobility and access by placing destinations closer together and decreasing the time and cost of traveling between them.”⁵⁷ According to SCAG, incorporating

⁵⁴ *City of Los Angeles, Health Atlas for the City of Los Angeles, (2013).*

⁵⁵ *City of Los Angeles, Health Atlas for the City of Los Angeles, (2013) 86-87.*

⁵⁶ *California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, (2010) 162.*

⁵⁷ *Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012) 113.*

“smart land use strategies encourages walking, biking, and transit use, and therefore reduces vehicular demand” and associated pollutants.⁵⁸ The high scores for walkability and number of destinations available for non-motorized trips within the Hollywood CPA supports the expectation that projects located in the area would achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide average. It also follows that projects located in the area would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the statewide average since the City of Los Angeles is more urbanized and has a higher mix and diversity of land uses than the state as a whole.

Therefore, based on City data and expert guidance from state and regional agencies, the proposed Project would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and statewide average. Furthermore, the land use mix and diversity scores for the Hollywood CPA in the Health Atlas show that the Project would be located in an area consistent with the regional SCAG RTP/SCS goals to improve mobility and access to diverse destinations, and to reduce vehicular demand and associated emissions.

- **Employment Density:** The Health Atlas recognizes that “[h]igher levels of employment density, particularly retail job densities, are associated with more walking trips” as they “allow for more frequent and comprehensive transit service.”⁵⁹ In turn, “[d]enser employment districts which are rich in transit service typically result in more walking and transit use ... and makes jobs more accessible to all residents.”⁶⁰ The Health Atlas evaluates employment density as the number of jobs per square mile. The Hollywood CPA has the 9th highest employment density of the 35 CPAs in the City (greater than the 10th highest Boyle Heights CPA but less than the 8th highest Harbor Gateway CPA) with approximately 4,200 jobs per square mile.

The Citywide average employee density is approximately 1,185 jobs per square mile.⁶¹ The data indicates that the Hollywood CPA has a high potential for walkability and making use of frequent and comprehensive transit services, such as the Metro Red Line and connecting bus lines. These findings are substantiated by the CAPCOA guidance measure LUT-1 (Increase Density), which states that “[i]ncreased densities affect the distance people travel and provide greater options for the mode of travel they choose.”⁶² Measure LUT-1 also states that increased densities “provides a foundation for implementation of many other strategies which would benefit from increased densities” such as “enhanced transit service.”⁶³ The Health Atlas findings are also related to the goals and benefits of the SCAG RTP/SCS, which seeks improved mobility and access and implementation of smart land use strategies that encourages walking, biking, and transit use, resulting in reduced vehicular demand and associated pollutants. The high employment density of the Hollywood CPA supports the expectation that projects located in the area would have high

⁵⁸ Southern California Association of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, (2012) 39.

⁵⁹ City of Los Angeles, *Health Atlas for the City of Los Angeles*, (2013) 90.

⁶⁰ City of Los Angeles, *Health Atlas for the City of Los Angeles*, (2013) 90.

⁶¹ City of Los Angeles, *Health Atlas for the City of Los Angeles*, (2013) 102.

⁶² California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, (2010) 155.

⁶³ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, (2010) 155.

levels of walkability and high potential for transit usage. As a result, the proposed Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and statewide average.

Therefore, based on City data and expert guidance from state and regional agencies, the proposed Project's location in an employment dense area would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and statewide average. Furthermore, the land employment density score for the Hollywood CPA in the Health Atlas show that the Project would be located in an area consistent with the regional SCAG RTP/SCS goals to improve mobility and access to diverse destinations, and to reduce vehicular demand and associated emissions.

- **Walkability:** The land use mix and diversity and employment density findings indicate that the Hollywood CPA has a high potential for walkability. The Health Atlas also provides a direct quantitative analysis of the walkability of each CPA using a Walkability Index based on four components: land use mix; residential density; retail density; and intersection density. Higher scores represent more walkable areas. The Hollywood CPA has the 9th highest Walkability Index of the 35 CPAs in the City (greater than the 10th highest Palms-Mar Vista-Del Rey CPA but less than the 8th highest South Los Angeles CPA). The data indicates that the Hollywood CPA is a relatively high walkable area. These findings are substantiated by the CAPCOA guidance measure LUT-9 (Improve Design of Development), which indicates that design elements that enhance walkability and connectivity, such as intersection density, reduce VMT and associated GHG emissions. The Health Atlas findings are also related to the goals and benefits of the SCAG RTP/SCS, which seeks better "placemaking," defined as "the process of developing options for locations where they can live and work that include a pleasant and convenient walking environment that reduces their reliance on their car."⁶⁴

The high Walkability Index of the Hollywood CPA supports the expectation that projects located in the area would have a highly walkable environment. As a result, the proposed Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and statewide average. Therefore, based on City data and expert guidance from state and regional agencies, the proposed Project's location in a walkable area would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and statewide average. Furthermore, the land employment density score for the Hollywood CPA in the Health Atlas show that the Project would be located in an area consistent with the regional SCAG RTP/SCS goals to provide better "placemaking" and to reduce vehicular demand and associated emissions.

- **Workers Commuting by Walking, Biking, and Public Transportation:** The Health Atlas also indicates that the Hollywood CPA has a high percentage of workers that commute to work by walking, biking, and public transportation. The Hollywood CPA has the 9th highest percentage of workers that commute to work by walking, biking, and public transportation at about 22 percent for the area as a whole based on 2010 data (greater than the 10th highest Silver Lake-Echo Park-

⁶⁴ *Southern California Association of Governments, 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, (2012) 112.*

Elysian Valley CPA but less than the 8th highest Wilshire CPA). The statewide percentage of workers that commute to work by walking, biking, and public transportation is approximately 9 percent based on census data for the 2010 to 2014 period.⁶⁵

As discussed previously, the Hollywood CPA is a high walkable area and the area is also well served by frequent and comprehensive transit including the Metro Red Line and multiple bus lines. Thus, the data indicates that the Hollywood CPA substantially exceeds the statewide average for the percentage of workers that commute to work by walking, biking, and public transportation. The Health Atlas findings are further substantiated by the CAPCOA guidance measures LUT-1, LUT-3, and LUT-9, as discussed previously, and also by LUT-5 (Increase Transit Accessibility), which indicates that “high density near transit will facilitate the use of transit by people.”⁶⁶ The Health Atlas findings are also related to the goals and benefits of the SCAG RTP/SCS, which seeks “[s]trategies focused on high-quality places, compact infill development, and more housing and transportation choices.”⁶⁷ The high level of workers that commute to work by walking, biking, and public transportation in the Hollywood CPA supports the expectation that projects located in the area would be accessible to alternative forms of transportation.

As a result, the proposed Project would be expected to achieve substantial reductions in VMT and associated mobile source emissions relative to the Citywide and statewide average. Therefore, based on City data and expert guidance from state and regional agencies, the proposed Project’s location in an area accessible to alternative forms of transportation including walking, bicycling, and transit would result in a substantial reduction in emissions from mobile sources and would have a substantially greater level of transportation efficiency when compared to the Citywide and statewide average. Furthermore, the Project would be located in an area consistent with the regional SCAG RTP/SCS goals to provide more transportation choices and to reduce vehicular demand and associated emissions.

The above data from the City’s Health Atlas supports the VMT reduction findings in this analysis. As discussed previously, the Project would result in a reduction in VMT of approximately 29 percent compared to a BAU project and would achieve a corresponding reduction in associated transportation-related air pollutant and GHG emissions. The Project’s specific location in close proximity to high-quality transit, including the Metro Red Line and multiple bus routes, its close proximity to other off-site retail, restaurant, entertainment, commercial, and job destinations, and its highly walkable environment support the finding in this analysis that the Project would achieve a reduction in VMT greater than the Hollywood CPA average and better than the City and statewide average.

Moreover, under the CEQA Guidelines Section 15064(h)(3) approach used by the SCAQMD, the following categories of emissions, at a minimum, would not count against the SCAQMD’s 10,000 MTCO₂e/yr. threshold due to their coverage by the Cap-and-Trade Program: Construction; On-Road Mobile Sources; Electricity;

⁶⁵ U.S. Census Bureau, American FactFinder, Data Set B08301 (Means of Transportation to Work, California, 2010-2014), <http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>. Accessed December 2015.

⁶⁶ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, (2010) 171.

⁶⁷ Southern California Association of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*, (2012) 114.

Natural Gas; and Stationary (Emergency Generator). For the currently proposed Project Option 1, the GHG emissions from categories potentially not covered by the Cap-and-Trade Program (Area, Water/Wastewater Conveyance, and Waste) would be 638 MTCO₂e/yr., out of a total of 8,905 MTCO₂e/yr. In sum, assessing significance via the SCAQMD approach described herein would result in the same finding that the Project's climate change impacts are less than significant and not cumulatively considerable.

Section 4.H Land Use

1. Volume 1, Section 4.H Land Use, Subsection 2.b, Regulatory Setting, Page 4.H-16. After the second paragraph add the following information to the regulatory discussion:

(I) City Charter Section 555 and LAMC Section 11.5.6

City Charter Section 555 provides procedures for adoption of General Plan amendments. The Charter provisions are implemented through the LAMC Section 11.5.6, which is consistent with and further delineates the procedural mechanisms for General Plan Amendments.

2. Volume 1, Section 4.H Land Use, Subsection 3.d.(2)(b), Hollywood Community Plan, Page 4H-36. Add to the end of the first bulleted paragraph information regarding General Plan and Zoning Code consistency as follows:

Further, the proposed re-designation of the Selma Avenue Area would correct the current inconsistency between the General Plan's Commercial Manufacturing designation and the existing C4 zoning designation for the Selma Avenue Area. According to the Hollywood Community Plan map, the Commercial Manufacturing General Plan designation corresponds only to the CM and P zoning designations. The proposed General Plan Amendment to the Regional Center Commercial designation for the Selma Avenue Area would be consistent with its existing C4 zone.

3. Volume 1, Section 4.H Land Use, Subsection 3.d.(2)(d), City of Los Angeles Municipal Code. After the paragraph at the top of Page 4.H-57, add a discussion of Project Consistency with the provisions of LAMC Code 11.5.6 (regarding City Charter Section 555) as follows:

LAMC Section 11.5.6

LAMC Section 11.5.6, General Plan, is the Code Section that implements City Charter Section 555, General Plan – Procedures for Adoption. LAMC Section 11.5.6 is consistent with and further delineates the procedural mechanisms for General Plan Amendments. The criteria in the documents provide that:

“... the City's comprehensive General Plan may be adopted and amended from time to time, either as a whole, by complete subject elements, by geographic areas or by portions of elements or areas, provided that any area or portion of an area has significant social, economic or physical identity.”

The Selma Avenue Area, alone and in conjunction with the Project Site, meets the requirements for significant social, economic and physical identity. The Selma Avenue Area has a strong social identity use as an entertainment venue dating back to its use as the original Famous Players-Lasky Corporation motion

picture studio lot. The Selma Avenue Area then became part of the Hollywood Palladium's use and development, and the hub of society gatherings in Hollywood, from the 1940s onward. As part of the entertainment business, this area also played a vital role in Hollywood's economic growth and development. Finally, the Palladium has been found eligible for the National Register, California Register and as a local Historic-Cultural Monument, and the Selma Avenue Area is part of Palladium site's physical identity, allowing accessibility to and views of the Palladium.

In addition to the Selma Avenue Area having its own significant identity, it also contributes to and is a part of the larger social, economic and physical identity of the area identified by the 1988 Hollywood Community Plan and the General Plan Framework Element. These existing Plans are intended to enhance the *physical identity* of Hollywood as an area of regional (worldwide) significance; define a *social* milieu of mixed-use and entertainment oriented development offering a distinct living experience within a clearly delineated area; and define an area for the focus of *economic* activity. In so defining the Project vicinity, the 1988 Hollywood Community Plan and the General Plan Framework Element present policies to establish an overall vision for development at the Project Site as well as the larger area.

The 1988 Hollywood Community Plan identifies the Selma Avenue Area as having a social, economic and physical identity as lying within the Hollywood Center. As stated on page HO-2 of the 1988 Hollywood Community Plan, "The focal point of the Community is the Hollywood Center" which is located on both sides of Sunset Boulevard. The Hollywood Center has a distinctive social, economic and physical identity "... 1) as the commercial center for Hollywood and surrounding communities and 2) as an entertainment center for the entire region." The Selma Avenue Area, within the Project Site and as designated within the Hollywood Center, contributes to this identity as a focal point for entertainment and social gathering within Hollywood, also making it a center of commercial activity.

The proposed plan amendment supports this vision of development within the Hollywood Center. The existing "Commercial Manufacturing" designation on the Selma Avenue Area is not supportive of the overall development vision articulated in the Hollywood Community Plan, and is inconsistent with the Site's C4 zoning designation, while the proposed Regional Center Commercial designation creates consistency with the existing zoning. The current designation reflects past land use on the Project Site and local vicinity when studio/studio support facilities were present and reflects the City's former practice of "footprint zoning" where areas used for parking had zoning designations limited to those uses. Today, the Selma Avenue Area is one of the few remaining isolated pockets within an area dominated by sites with "Regional Commercial" designations, within the Hollywood Center extending to the north, west and south of the Site. As such, the existing Selma Avenue Area designation is not compatible with the surrounding residential and commercial uses per the Hollywood Center vision laid out in the Hollywood Community Plan. The Plan amendment supports a development pattern based on the focus of mixed commercial/residential uses, neighborhood-oriented retail, employment opportunities, and civic and quasi-public uses around urban transit stations, while protecting and preserving surrounding low-density neighborhoods from the encroachment of incompatible land uses. It contributes to a density pattern of low density residential development transitioning to greater density closer to the Metro Station, with intermediate transitional densities in between.

The General Plan Framework likewise identifies the Selma Avenue Area as having a social, economic and physical identity as a component of a Regional Center. A Regional Center is a high-density place, and a focal point of regional commerce, identity, and activity, not inclusive of manufacturing facilities. The designation

in the Framework Element provides guidance for the establishment of the Hollywood Center in the Hollywood Community Plan, and ties that center into an overall development pattern for the City as a whole. The Palladium site is a regionally significant venue in Los Angeles that helps establish the Hollywood Center as a distinct physical area within the City providing its unique “Hollywood” blend of social and economic activity.

Section 4.L Transportation and Circulation

1. Volume 1, Transportation and Circulation Section 4.L.3.(c)(2) Project Characteristics, Operations, 4.L-28. Revise the description of the Project access at the bottom of the page, as follows:

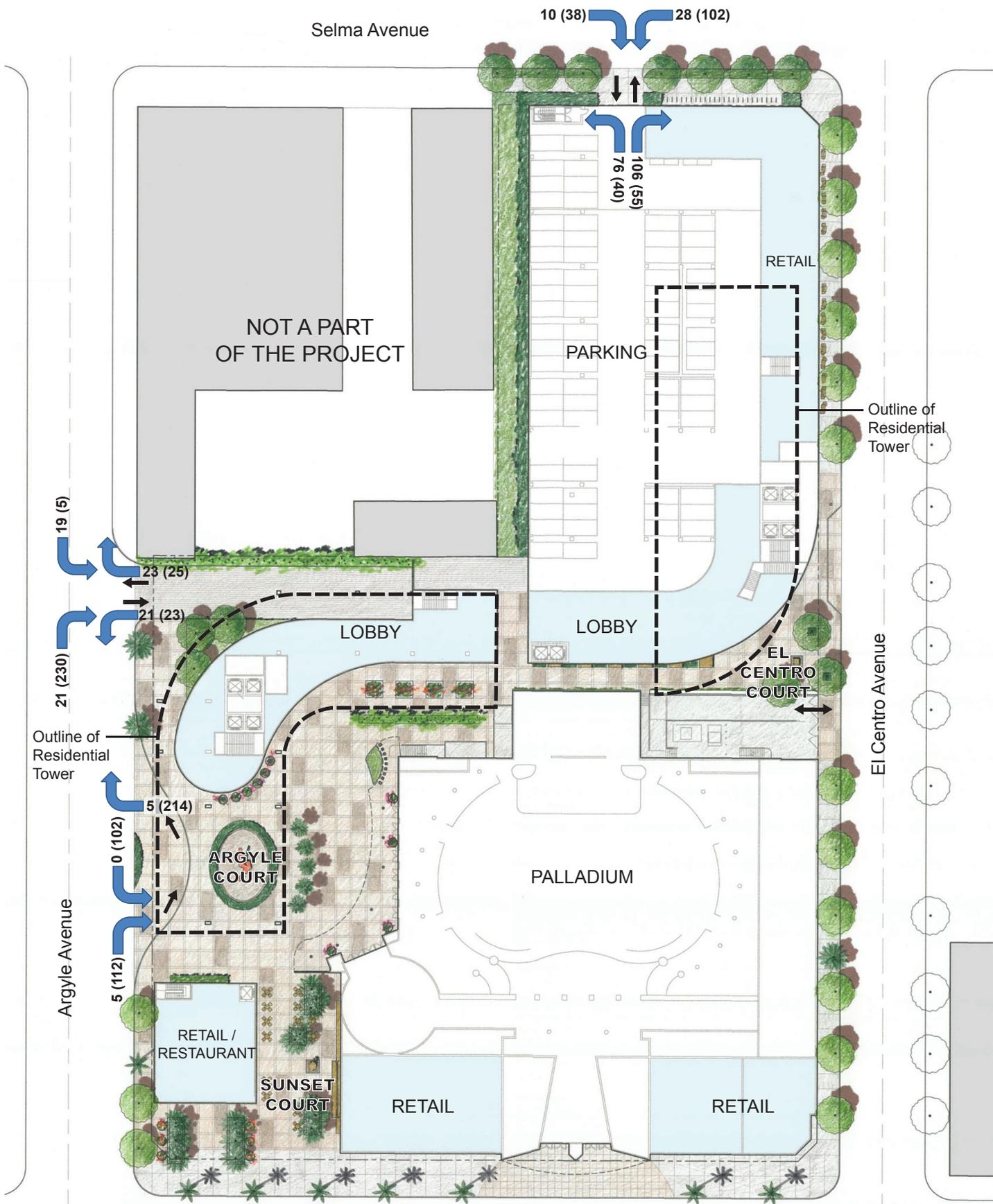
(b) Site Access

The Site Access locations and traffic volumes entering and leaving the Project during the A.M. and P.M. peak hours for the Option 1 and Option 2 is shown on **Figure 4.L-3, Site Access and Future Inbound/Outbound Project Vehicles – Option 1, Residential**, (as revised in Errata 2 **Figure 2, Site Access and Future Inbound/Outbound Project Vehicles**), and **Figure 4.L-4, Site Access and Future Inbound/Outbound Project Vehicles – Option 2, Residential/Hotel**, respectively.⁶⁸

The Project would have access via Argyle Avenue, Selma Avenue, and El Centro Avenue as follows:

- Three driveways are proposed along Argyle Avenue. The Project would feature a Porte Cochere – a covered entrance for vehicles to pull through and drop off passengers – for pick-up/drop-off and potentially valet service served by one inbound and one outbound driveway. In addition, a third driveway is proposed to be located immediately north of the Porte Cochere, allowing ~~one~~ two-way inbound vehicular access to the site’s parking areas. Truck access would also occur at this driveway. Residents and visitors may use ~~any of the three driveways~~ the Porte Cochere for pick-up/drop-off, but ~~inbound~~ access for self-parking would occur at the third driveway immediately north of the Porte Cochere.
- Selma Avenue would feature a full access driveway for residents and visitors who self-park. ~~Trucks entering via the Argyle Avenue driveway would be able to exit the site via this driveway.~~ Truck access could also potentially occur at this driveway.
- Additional truck access would be provided via the existing Palladium loading docks located at the northeast edge of the Palladium building along El Centro Avenue, north of Sunset Boulevard.
- Valet service would be available for Project residents, Project visitors, and Palladium event attendees, at the Porte Cochere and/or within the parking structure.

⁶⁸ The total number of trips reflected in the figures includes the Project generated trips as noted in the previous paragraph plus a small number of drive-by trips, i.e. travelers otherwise passing through the area and making a stop at the Project Site.



(###) AM (PM) Volumes

Sunset Boulevard



Site Access and Future Inbound/Outbound Project Vehicles

Palladium Residences

ERRATA 2
FIGURE

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2. Volume 1, Transportation and Circulation Section 4.L.3.d.(1) Project Impacts, Construction, Page 4.L-36. Add at the following discussion of construction parking after the third bullet at the top of the page, as follows:

Parking for construction workers would be provided at alternative parking location(s) with transportation to and from the Project site (if beyond walking distance). The precise locations for off-site parking, when needed due to the nature of the construction activities occurring at a specific time, will depend on market conditions at the time the parking is needed, pursuant to a Construction Worker Parking Plan, requiring approval by the City. A review of currently-available parking in the vicinity of the Project site, indicates that parking is widely available. A survey conducted by Proper Parking Company in February of 2016 (included in Appendix C-4 to this Errata) indicates that there are more than 15 existing sites within walking distance of the Palladium Residences Project site that have available parking plus two additional parking facilities under construction. These sites provide over 10,000 total parking spaces among them. (Implementation of the Construction Worker Parking Plan is ensured per Mitigation measure MM-TRAF-6.)

The Palladium Residences Project site currently contains a 317-space surface parking lot serving the Palladium. The Palladium Residences Project will provide 317 replacement parking spaces for Palladium use upon completion of the Project. During construction of the project, however, the parking lot will not be available for Palladium event attendees. Palladium event attendees will need to park off-site during much if not all of the construction period. Rather, Palladium event attendees will park at available off-site parking lots or structures in the Project vicinity, such as those identified in the Proper Parking Company survey and listed in Appendix C-4 to Errata 2. Since most Palladium events occur in the evening after the workday and on weekends, substantial office parking is available for Palladium patrons within the vicinity of the project.

3. Volume 1, Transportation and Circulation Section 4.L.3.(e) Regional Public Transit System, (i) Impacts on Existing 2013 Baseline, Page 4.L-56, first paragraph; and Errata 1, Section D. Corrections and Additions, Page D-29. The cited paragraph should read as follows.

(i) Impacts Based on Existing 2013 Baseline

The Traffic Report estimated the number of Project residents and visitors that would ride transit vehicles during the A.M. and P.M. peak hours based on the CMP recommended methodology. Following this approach, Option 1 would generate an estimated ~~35~~ 39 and ~~39~~ 43 transit riders in A.M. and P.M. peak hour, respectively, from residential use and 11 and 14 transit riders in A.M. and P.M. peak hour, respectively, from commercial uses, or a total of ~~46~~ 50 and ~~53~~ 57 transit riders in A.M. and P.M. peak hour respectively. Option 2 would generate an estimated ~~29~~ 32 and ~~32~~ 35 transit riders in A.M. and P.M. peak hour, respectively, from residential use and 39 and 48 transit riders in A.M. and P.M. peak hour, respectively from commercial uses. The total ridership would be ~~46~~ 50 and ~~53~~ 57 transit riders in A.M. and P.M. peak hour, respectively, under Option 1 and ~~68~~ 71 and ~~80~~ 83 transit riders in A.M. and P.M. peak hour, respectively, under Option 2.

4. Volume 1, Transportation and Circulation Section 4.L.3.(f) Access, Page 4.L-57, revise the LOS levels for the 2018 baseline conditions in the last paragraph of the page as follows:

(ii) Impacts Based on Future 2018 Baseline

Table 4.L-12, Future Plus Project Driveway Operating Levels of Project Driveways, shows the expected delay times and LOS operating levels at the three new Project driveways. As shown, the analyzed driveway locations are projected to operate at acceptable LOS (LOS C or better) under Future Plus Project conditions. Since the Project driveways would be LOS C or better, Project impacts would be less than significant.

5. Volume 1, Transportation and Circulation Section 4.L.3.(f) Access, , Page 4.L-58, revise the Delay Times and LOS levels for Option 1 in Tables 4.L-11 and 4.L-11 as follows:

Table 4.L-11

Existing Plus Project Operating Levels of Project Driveways

Scenario	Location	Peak Hour	Delay	LOS
Option 1 (Residential)	Selma Avenue Driveway	A.M.	12.1	B
		P.M.	13.0	B
	Argyle Avenue Driveway	A.M.	10.3 <u>10.5</u>	B
		P.M.	13.3 <u>21.0</u>	B <u>C</u>
	Argyle Avenue (Porte Cochere) Driveway	A.M.	0.0 <u>9.3</u>	A
		P.M.	15.3 <u>11.9</u>	C <u>B</u>

Source: Fehr & Peers ~~2014~~ 2016

Table 4.L-12

Future Plus Project Operating Levels of Project Driveways

Scenario	Location	Peak Hour	Delay	LOS
Option 1 (Residential)	Selma Avenue Driveway	A.M.	15.6	C
		P.M.	17.1	C
	Argyle Avenue Driveway	A.M.	11.6 <u>11.9</u>	B
		P.M.	14.9 <u>32.4</u>	B <u>D</u>
	Argyle Avenue (Porte Cochere) Driveway	A.M.	0.0 <u>10.1</u>	A <u>B</u>
		P.M.	20.2 <u>12.4</u>	C <u>B</u>

Source: Fehr & Peers ~~2014~~ 2016

6. Volume 1, Transportation and Circulation Section 4.L.4, Mitigation Measures, Page 4.L-63. Revise construction mitigation measures MM-TRAF-2, MM-TRAF-3, and MM-TRAF-5, as follows:

MM-TRAF-2: A ~~flagman~~ flagger shall be placed at the truck entry and exits from the Project site onto Selma Avenue, El Centro Avenue, Argyle Avenue and/or Sunset Boulevard to control the flow of exiting trucks.

MM-TRAF-3: With the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days, deliveries ~~Deliveries~~ and pick-ups of construction materials shall be scheduled during non-peak travel periods (avoiding the peak commute hours of 7:00 to 9:00 A.M. and 3:00 to 7:00 P.M. on weekdays) and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.

MM-TRAF-5: Permanent lane or sidewalk closures are not anticipated for the Project long-term operations. Temporary lane or sidewalk closures, when needed for construction, shall be scheduled to avoid peak commute hours (7:00 to 9:00 A.M. and 3:00 to 7:00 P.M. on weekdays) and peak school drop-off and pick-up hours to the extent possible, with the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days. In the event of full-time lane or sidewalk closures for construction, a worksite traffic control plan, approved by the City of Los Angeles, shall be implemented to safely route traffic or pedestrians around any such lane or sidewalk closures.

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E. EFFECTS OF CORRECTIONS AND ADDITIONS

This Errata 2 provides additions to the EIR (comprised of the Draft EIR, Final EIR, and Errata 1). As demonstrated by the following discussion, the modifications to the EIR do not result in new significant impacts and do not warrant recirculation of the EIR.

CEQA Guidelines Section 15088.5 requires that an EIR that has been made available for public review, but prior to final certification, be recirculated only if significant new information has been added to the EIR. The relevant portions of CEQA Guidelines section 15088.5 read as follows:

(a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation include, for example, a disclosure showing that:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.

(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

Errata 2 provides information regarding minor revisions to the Project design, additional information to the previous EIR analyses, minor revisions to Mitigation Measures and Project Design Features, clarifications and minor edits to the previous EIR documents, and new agency correspondence. The information is supplementary to the current analyses and provides further substantiation for the conclusions previously reached. The modifications to the Mitigation Measures and Project Design Features will enhance their effectiveness, reducing Project impacts, and will not result in secondary environmental impacts for their implementation.

Therefore, the modifications to the EIR are not significant because the EIR is not changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect

of the Project. Based on the above, the clarifications to the EIR would not result in any new significant impacts or a substantial increase in the severity of any impact already identified in the EIR. Thus, none of the conditions in Section 15088.5 of the CEQA Guidelines are met, and recirculation is not required.

APPENDICES

LIST OF APPENDICES

Appendix A: Supplementary Aesthetics Appendix

- A-1. Francis Krahe and Associates, Lighting Technical Analysis, Palladium Residences, Los Angeles, California, November 13, 2015.
- A – 2. Zoning Information File No 2452 - Aesthetics and Parking Under SB 743

Appendix B: Supplementary Air Quality and Greenhouse Gas Emissions Information

- B-1. Ramboll Environ, Evaluation of the AB32 Scoping Plan Business-as-Usual Threshold for the Palladium Residences Project, Hollywood, California, February 3, 2016.

Appendix C: Supplementary Information regarding Transportation and Circulation

- C-1. Caltrans Letter to the City of Los Angeles, November 30, 2015
- C-2. Fehr & Peers, Palladium Residences – Cumulative Analysis including Hollywood Crossroads and 6200 Sunset Related Projects, February 10, 2016.
- C-3. Revised Table 3 from Page 74 of Appendix K-1, Traffic Analysis Report, Construction Period Trip Generation (Revised to Reflect Restriction on Truck Travel Outside of the Peak Periods)
- C-4. Proper Parker, Parking Options surrounding the Hollywood Palladium.
- (A – 2, per above: Zoning Information File No 2452 - Aesthetics and Parking Under SB 743)

Appendix D: Supplementary Analysis Regarding Noise Impacts

- D-1. Revised Table 4.I-10

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4.0 MITIGATION MONITORING AND REPORTING PROGRAM

The mitigation measures shown below reflect the measures as originally presented in the Final EIR, with changes implemented in the EIR Errata 1 and Errata 2 shown in underline for additions and ~~striketrough~~ for deletions.

A. INTRODUCTION

This Mitigation Monitoring and Reporting Program (“MMRP”) has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a “reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” In addition, Section 15097(a) of the State *CEQA Guidelines* requires that:

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The City of Los Angeles is the Lead Agency for the Project and therefore is responsible for administering and implementing the MMRP. Where appropriate, the Project’s Draft and Final EIRs identified mitigation measures to avoid or to mitigate potential impacts identified to a level where no significant impact on the environment would occur, or impacts would be reduced to the extent feasible. This MMRP is designed to monitor implementation of the Project’s mitigation measures as well as its project design features.

As shown on the following pages, each required mitigation measure and proposed project design feature for the Project is listed and categorized by impact area, with an accompanying identification of the following:

- **Enforcement Agency:** The agency with the power to enforce the Mitigation Measure/Project Design Feature.
- **Monitoring Agency:** The agency to which reports involving feasibility, compliance, implementation and development are made.
- **Monitoring Phase:** The phase of the Project during which the Mitigation Measure/Project Design Feature shall be monitored.
- **Monitoring Frequency:** The frequency at which the Mitigation Measure/Project Design Feature shall be monitored.
- **Action Indicating Compliance:** The action of which the Enforcement or Monitoring Agency indicates that compliance with the required Mitigation Measure/Project Design Feature has been implemented.

The Project's MMRP will be in place throughout all phases of the Project. The Project applicant will be responsible for implementing all mitigation measures unless otherwise noted. The applicant shall also be obligated to provide a certification report to the appropriate monitoring agency and the appropriate enforcement agency that compliance with the required mitigation measure or project design feature has been implemented. The City's existing planning, engineering, review, and inspection processes will be used as the basic foundation for the MMRP procedures and will also serve to provide the documentation for the reporting program.

The certification report shall be submitted to the Project Planner at the Los Angeles Department of City Planning. Each report will be submitted to the Project Planner annually following completion/implementation of the applicable mitigation measures and project design features and shall include sufficient information and documentation (such as building or demolition permits) to reasonably determine whether the intent of the measure has been satisfied. The City, in conjunction with the Applicant, shall assure that Project construction and operation occurs in accordance with the MMRP.

After review and approval of the final MMRP by the City, minor changes and modifications to the MMRP are permitted, but can only be made by the Applicant subject to the approval by the City. The City, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed changes or modification. The flexibility is necessary due to the nature of the MMRP, the need to protect the environment in the most efficient manner, and the need to reflect changes in regulatory conditions, such as but not limited to changes to building code requirements, updates to LEED "Silver" standards, and changes in Secretary of Interior Standards. No changes will be permitted unless the MMRP continues to satisfy the requirements of CEQA, as determined by the City.

B. PROJECT DESIGN FEATURES, MITIGATION MEASURES AND IMPLEMENTATION

Aesthetics/Visual Resources

Project Design Features

No Project Design Features are proposed for Aesthetics/Visual Resources

Mitigation Measures

No mitigation measures are required for Aesthetics/Visual Resources.

Air Quality

Project Design Features

See PDF-GHG-1 and PDF-GHG-2, below.

Mitigation Measures

MM-AQ-1: The Applicant shall implement the following measures to reduce the emissions of air pollutants generated by heavy-duty diesel-powered equipment operating at the Project Site:

- The most current grade of ultra-low sulfur diesel (ULSD) fuel approved by CARB and available in the South Coast Air Basin shall be used for all heavy-duty diesel-powered equipment operating and/or refueling at the Project Site
- Truck and equipment idling and queuing time shall be limited to five minutes or less, when equipment is not in active use, in accordance with the CARB Airborne Toxic Control Measure;
- The use of the electricity infrastructure surrounding the construction sites shall be used wherever available and possible rather than electrical generators powered by internal combustion engines;
- Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for the intended job);
- All construction equipment operating on-site shall be properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules;
- Tampering with construction equipment to increase horsepower or to defeat emission control devices shall be prohibited;
- The use of all construction equipment shall be suspended during a second-stage smog alert in the immediate vicinity of the Project Site.

Enforcement Agency: SCAQMD; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic field inspections during construction

Action Indicating Compliance: Field inspection sign-off; Compliance certification report by Project contractor

Cultural Resources

Archaeological and Paleontological Resources

Project Design Features

No Project Design Features are proposed for Archaeological and Paleontological Resources

Mitigation Measures

MM-ARCH-1: The Applicant shall retain a qualified archaeological monitor who meets the Secretary of the Interior's Professional Qualifications Standards for an archaeologist who shall be present during construction excavations such as grading, trenching, grubbing, or any other construction excavation activity associated with the Project. The frequency of monitoring shall be determined by the archaeological monitor based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus fill soils), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Prior to the onset of construction activities an Archaeological Resource Mitigation Plan (ARMP) shall be prepared. The ARMP shall include protocols for implementation of the Archaeological

Mitigation Measures; and shall also require implementation of a pre-construction testing program with a sampling of soil testing at representative test trenches.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic per recommendations of archaeological monitor

Action Indicating Compliance: Compliance report by qualified archaeological monitor.

MM-ARCH-2: In the event that archaeological resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Work shall be allowed to continue outside of the vicinity of the find. All archaeological resources unearthed by Project construction activities shall be evaluated by the archaeologist. The Applicant shall coordinate with the archaeologist and the City to develop an appropriate treatment plan for the resources if they are determined to be potentially eligible for the California Register or potentially qualify as unique archaeological resources pursuant to CEQA. Treatment may include implementation of archaeological data recovery excavations to remove the resource or preservation in place.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: At time of resource discovery, should it occur

Action Indicating Compliance: If archaeological resources are unearthed, submittal of compliance certification report and treatment plan by a qualified archaeological monitor

MM-ARCH-3: The archaeological monitor shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted by the Applicant to the City, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures. The report shall include a description of resources unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register. The Applicant, in consultation with the archaeologist and the City shall designate repositories meeting State standards in the event that archaeological material is recovered. Project material shall be curated in accordance with the State Historical Resources Commission's Guidelines for Curation of Archaeological Collections.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning

Monitoring Phase: Post-construction

Monitoring Frequency: Once upon completion of excavation

Action Indicating Compliance: Compliance report by qualified archaeological monitor.

MM-ARCH-4: If human remains are encountered unexpectedly during implementation of the Project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the Applicant, inspect the site of the discovery of the Native American remains and may recommend means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the Applicant to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the Applicant has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Applicant shall discuss all reasonable options with the descendants regarding the descendants' preferences for treatment.

Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the Applicant or his or her authorized representative rejects the recommendation of the descendants and the mediation provided for in Subdivision (k) of PRC Section 5097.94, if invoked, fails to provide measures acceptable to the Applicant, the Applicant or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing through grading and excavation

Action Indicating Compliance: If human remains are encountered unexpectedly, submittal of written evidence to the Los Angeles Department of City Planning of compliance with State Health and Safety Code Section 7050.0 and Public Resources Code Section 5097.98

MM-PALEO-1: A qualified Paleontologist shall attend a pre-grade meeting and develop a paleontological monitoring program for excavations into older Quaternary Alluvium deposits. A qualified paleontologist is defined as a paleontologist meeting the criteria established by the Society for Vertebrate Paleontology. The qualified Paleontologist shall supervise a paleontological monitor who shall be present during construction excavations into older Quaternary Alluvium deposits. Monitoring shall consist of visually

inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. The frequency of monitoring inspections shall be determined by the Paleontologist and shall be based on the rate of excavation and grading activities, the materials being excavated, and the depth of excavation, and if found, the abundance and type of fossils encountered.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction, Construction

Monitoring Frequency: Once prior to issuance of building permits for program approval; Periodic during excavation

Action Indicating Compliance: Issuance of grading permit and development of paleontological resources monitoring program; Compliance report by qualified paleontologist

MM-PALEO-2: If a potential fossil is found, the Paleontological Monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. At the Paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

Enforcement Agency: Los Angeles Department of Building and Safety; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: At time of resource discovery, should it occur

Action Indicating Compliance: If no unanticipated discoveries are found and grading occurs within the older Quaternary Alluvium, compliance certification report by qualified paleontologist; if unanticipated discoveries are found, submittal of a report and mitigation plan(s) by a qualified paleontologist.

MM-PALEO-3: Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning;

Monitoring Phase: Construction

Monitoring Frequency: At time of resource recovery, should resources be discovered

Action Indicating Compliance: If no unanticipated discoveries are found and grading occurs within the older Quaternary Alluvium, compliance certification report by qualified paleontologist; if

unanticipated discoveries are found, submittal of a report by a qualified paleontologist.

MM-PALEO-4: Following the completion of the above measures, the Paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Project Applicant to the lead agency, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning

Monitoring Phase: Construction

Monitoring Frequency: Once upon the completion of excavation

Action Indicating Compliance: If no unanticipated discoveries are found and grading occurs within the older Quaternary Alluvium, compliance certification report by qualified paleontologist; if unanticipated discoveries are found, submittal of a by a qualified paleontologist

Historical Resources

Project Design Features

PDF-HIST-1: Palladium Preservation and Enhancement Plan. The Applicant shall contribute to the preservation and enhancement of the Palladium through improvements to be selected at the Applicant’s election, including from the following list of potential improvements, provided that the proposed improvement to be implemented must be (1) selected by the Applicant as a priority improvement and approved by its tenant for the Palladium, (2) approved by the Department of City Planning’s Office of Historic Resources (“OHR”) and (3) in compliance with the Secretary of the Interior’s Standards for Rehabilitation, as certified by a qualified historic preservation consultant who shall monitor work under the Palladium Preservation and Enhancement Plan for conformance with the Standards.

- A. Timing. A draft Palladium Preservation and Enhancement Plan proposed by the Applicant shall be submitted to Hollywood Heritage and OHR no later than 30 calendar days prior to any design review required from same and prior to the issuance of building permits for the Project, and which will include identification of character-defining features and the significance of such features. A final Plan shall be approved by OHR prior to issuance of final certificates of occupancy for the Project. At the Applicant’s option, earlier review by OHR may be requested such as during schematic design and design development. An Historic Structure Report shall also be prepared in conjunction with the final Preservation and Enhancement Plan.
- B. Potential Elements for Inclusion. The following includes a list of proposed potential improvements to be considered for inclusion in the Palladium Preservation and Enhancement Plan. This list is based, in part, on surveys of the Palladium conducted by Historic Resources Group, which prepared the Project’s Historic Resources

Assessment Report and conducted a prior historic review of the Palladium in conjunction with the Palladium's 2008 rehabilitation. This list is also based on improvements recommended in comment letters on the Draft EIR, as well as needed functional improvements to the Palladium's operations, to ensure that it remains a first-class entertainment venue. Prior to construction of any improvements, the Applicant shall propose those improvements it determines to be priority improvements and seek to obtain the approvals referenced in items 1, 2 and 3 of the first paragraph above.

- Improve the Palladium's existing back-stage space, back-of-house service, and loading operations, which do not meet current performance and production needs - replace the 2008 addition on the northern side of the Palladium, and potentially the previously altered, original extension in the same location, with subterranean and/or overhead bridge connections to the new building on the north side. Additionally, relocate the existing outdoor truck loading area to a subterranean level; with subterranean access from Argyle and Selma Avenues. These enhancements would provide additional staging areas for the Palladium's operations within the new building; improve loading operations; eliminate any potential pedestrian-vehicular conflicts on El Centro Avenue; and provide substantially more open space on the rear side of the Palladium for walking and gathering;
- Improve accessibility to, and utilization of, the Palladium's existing southern storefront spaces, better integrate the storefront spaces with the proposed Project, and improve queuing – provide doors and potential window openings within the Palladium's western wall to connect pedestrians from Sunset Court to the Palladium's storefronts;
- Prepare a design program for the Palladium's existing southern storefront spaces. The nonstructural storefront partitions on the southern façade of the Palladium building were altered prior to the Palladium's 2008 rehabilitation project, and were not uniform or character-defining. The 2008 rehabilitation funded by CRA removed non-character-defining features, reconstructed missing original features, and built new features such as storefronts that are compatible with the historic building. Similar to the intent and implementation of the 2008 rehabilitation, a design program for these storefronts ~~would~~ will include a uniform set of components that provide for a coherent design among the different storefront bays while allowing for layout options that meet the needs of tenants, for instance allowing alterations of the locations and numbers of doors, windows, and mullions;
- Prepare a historically compatible signage plan for the Palladium's existing southern storefront spaces, potentially including such elements as sign dimensions and options for materials, construction, illumination, colors, and finishes. Historically there have been many different styles and types of tenant signage used on the building, and consideration will be given to historic signage design precedents that are documented in archival photographs of the Palladium when designing new signage for the storefronts. However signage may or may not be needed for the existing storefront spaces;
- Flush opaque entrance lobby doors on Sunset and Argyle - Replace with fully glazed doors that recall original design documented in the original Gordon Kaufmann drawings;
- Ballroom ceiling - Repair and replace textured acoustical plaster as needed;

- Ballroom floor - Stripping, screening, varnishing, and waxing on a 10 year cycle;
- Lobby finish, lighting, and restoration - Install compatible sconces, wall covering, and carpet;
- Public toilets - Remove and reinstall clean, durable multiple-accommodation facilities;
- Ballroom chandeliers - Dust and wash glass; reduce corrosion and wax metal on a 10 year cycle;
- Wood roof framing - Annual inspection and local treatment by licensed exterminator
- Metal flashings, fasciae, hardware - Maintenance of finishes and operating parts on a 10 year cycle;
- Exterior Walls - Maintenance of painted surfaces on a 10 year cycle;
- Neon and specialty signage and lighting - Maintenance of ballasts, tubes, boxes, shields, faces on a 10 year cycle;
- HVAC system - Engineering and replacement of major components on a 15 year cycle;
- Roof - Replacement on a 20 year cycle;
- Toilet fixtures, fittings, & accessories - Replacement of heavy use toilet components on a 10 year cycle.

Enforcement Agency: Los Angeles Department of City Planning, Office of Historic Resources

Monitoring Agency: Los Angeles Department of City Planning, Office of Historic Resources

Monitoring Phase: Pre Construction, Construction, Operations

Monitoring Frequency: Submittal of draft Plan prior to issuance of building permits; approval of final Plan by OHR prior to issuance of final certificates of occupancy; periodic thereafter based on Plan details

Action Indicating Compliance: Approval of Plan by OHR; Compliance report by historic consultant/monitor

PDF-HIST-2: Historic Interpretive Exhibit. An Historic Interpretive Exhibit shall be incorporated into the Project at key locations to increase general public and patron awareness and appreciation of the history and significance of Hollywood and the Hollywood Palladium. The exhibit shall provide informative visual displays and/or media that may address such topics as: the building’s architectural style and architect; identification of other historical buildings in the Project vicinity and their relationship to the Palladium; use of the Project Site prior to construction of the Palladium and the historic Hollywood context; and the layers of history at the site: agriculture, motion picture industry, musical recording, live entertainment, radio, and television. The display shall be designed and implemented pursuant to input from Hollywood stakeholders. The Historic Interpretive Exhibit may be located within the Palladium building itself, or as an outdoor interpretive program reviewed and approved by the Office of Historic Resources. The Historic Interpretive Exhibit will not be housed in separate new construction appended to the exterior of the Palladium building.

Enforcement Agency:	Los Angeles Department of City Planning
Monitoring Agency:	Los Angeles Department of City Planning
Monitoring Phase:	Construction, Operations
Monitoring Frequency:	Once during construction for consistency with the PDF; Once during operations
Action Indicating Compliance:	Compliance report by Applicant

Mitigation Measures

No mitigation measures are required for Historical Resources.

Geology

Project Design Features

No Project Design Features are Proposed for Geology.

Mitigation Measures

MM-GS-1: Prior to issuance of a grading permit, a qualified geotechnical engineer shall prepare and submit to the Department of Building and Safety a final geotechnical report that provides recommendations for seismic safety and design requirements for foundations, retaining walls/shoring and excavation to meet applicable State and City regulatory requirements. A qualified geotechnical engineer shall be retained by the Applicant to be present on the Project Site during excavation, grading, and general site preparation activities to monitor the implementation of the recommendations specified in the Geology and Soils Report, final geotechnical report, and any other subsequent Geology and Soils Reports prepared for the Project, subject to City review and approval. When and if needed, the geotechnical engineer shall provide structure-specific geologic and geotechnical recommendations which shall be documented in a report to be approved by the City and appended to the Project's previous Geology and Soils Reports.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Pre-Construction and Construction
Monitoring Frequency:	Once, prior to issuance of grading permit; Periodic field inspections during construction
Action Indicating Compliance:	Issuance of grading permits; Field inspection sign-off; Geotechnical Engineers site visit reports as needed

Greenhouse Gas Emissions

Project Design Features

PDF-GHG-1: Construction Measures: The Project shall utilize off-road diesel-powered construction equipment that meet or exceed the CARB and USEPA ~~Tier 3~~ Tier 4 off-road emissions standards for ~~those~~ equipment rated at 50 hp or greater during ~~the grading, concrete pouring and building construction phases of~~ Project construction. Pole power (electricity delivered from the utility grid) shall be the primary source of power for use with on-site electric tools, equipment, lighting, etc., except where/when infeasible due to site constraints; diesel generators, if needed, shall be rated between 75 horsepower (hp) and 750 hp and meet or exceed applicable Tier 4 standards. Total diesel generator usage during construction shall not exceed 312,000 horsepower-hours. Cranes and concrete pumps shall be electrified with pole power. The Project shall utilize on-road haul trucks that meet or exceed the model year 2010 emission standards These requirements shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment.

Enforcement Agency: SCAQMD; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic field inspections during construction

Action Indicating Compliance: Field inspection sign-off

PDF-GHG-2: Green Building Measures: The Project would be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design® (LEED®) Silver Certification level or its equivalent. Green building measures would include but are not limited to the following:

- The Project would implement a construction waste management plan to recycle and/or salvage a minimum of 70 percent of nonhazardous construction debris or minimize the generation of construction waste to 2.5 pounds per square foot of building floor area. (LEED® Materials and Resources Credit 5 [v4]);
- Trees and other landscaping (approximately 53,600 square feet or 35 percent of the Site area) would provide shading and capture carbon dioxide emissions;
- Roof-top Terraces would include approximately 37,300 square feet of landscaped area. The remaining roof-top areas would use high-albedo/reflective roofs such as light-colored, build-up "white" roofs to reduce energy loads and the urban heat-island effect;
- The Project would be designed to optimize energy performance and reduce building energy cost by 10 percent for new construction compared to the Title 24 Building Standards Code. (LEED® Energy and Atmosphere Credit 2 [v4]);

- The Project would be designed to optimize energy performance and reduce building energy cost by installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent;
- The Project would include double-paned windows to keep heat out during summer months and keep heat inside during winter months;
- The Project would include lighting controls with occupancy sensors to take advantage of available natural light;
- The parking structure would be designed with occupancy-sensor controlled lighting that would place lighting fixtures in a low power state in unoccupied zones. A demonstration project by the United States Department of Energy indicated that the use of occupancy-sensor controlled lighting achieved a reduction of 50 percent or more in lighting energy use compared to a similarly lighted parking structure without occupancy-sensor controls. For the purposes of this assessment, compliance with this feature is assumed to achieve a minimum 50 percent reduction in the energy required for parking structure lighting;
- The Project would reduce overall potable water use by a minimum of 30 percent compared to baseline water consumption as defined by LEED® Water Efficiency Prerequisite 2 [v4] by installing water fixtures that exceed applicable standards, weather-based irrigation controllers, drip/subsurface irrigation, use of drought tolerant/California native plants, and collection of stormwater for use in landscaping. (LEED® Water Efficiency Credit 2 [v4]);
- The Project would provide on-site recycling areas, consistent with City of Los Angeles strategies and ordinances, with the goal of achieving 70 percent waste diversion by 2020, and 90 percent by 2025;
- The Project would utilize low VOC paint during building construction for all residential and non-residential interior coating;
- No on-site car washing facilities will be provided;
- Pools/Spas will be heated by natural gas;
- An online portal will be provided to include message board or other tools to organize ridesharing programs;
- On-site residents will be provided LADOT and Metro regional transit information;
- The Project will install solar panels on at least 1,300 square feet of roof-top space and/or equipment;
- The Project will include 40 electric vehicle (EV) chargers, that would be capable of servicing 80 parking spaces, within parking areas.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction; Operation

Monitoring Frequency: Once at plan check prior to issuance of building permit; Once after operation

Action Indicating Compliance: Issuance of Building Permit (Pre-construction);
Compliance certification report (Operation)

Mitigation Measures

No Mitigation Measures are required for Greenhouse Gas Emissions.

Hazards and Hazardous Materials

Project Design Features

No Project Design Features are proposed for Hazards and Hazardous Materials.

Mitigation Measures

MM-HAZ-1: Prior to issuance of a building permit, the Applicant shall investigate the purpose of the on-site groundwater monitoring wells to determine whether they are still necessary. If it is determined that the wells are not associated with any ongoing investigation, they shall be properly abandoned in accordance with applicable regulations and guidelines. In addition, the USTs shall be removed pursuant to the previous LAFD review and closure letter.

Enforcement Agency: Los Angeles Department of Building and Safety; LAFD; RWQCB

Monitoring Agency: Los Angeles Department of Building and Safety; LAFD

Monitoring Phase: Pre-construction; Construction

Monitoring Frequency: Once at onset of building activities

Action Indicating Compliance: Compliance report

MM-HAZ-2: Prior to enhancement activities involving any alterations to the Palladium in areas where asbestos could be found, the Applicant shall submit verification to the City of Los Angeles Department of Building and Safety that an asbestos survey for the proposed area of alteration has been conducted. If asbestos is found, the Applicant shall follow all procedural requirements and regulations of the SCAQMD Rule 1403.

Enforcement Agency: Los Angeles Department of Building and Safety; SCAQMD

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Pre- Construction; Construction if asbestos if found

Monitoring Frequency: Once prior to Palladium building alterations; on-going during alterations if asbestos is found

Action Indicating Compliance: Compliance report by Project contractor

MM-HAZ-3: Prior to enhancement activities involving any alterations to the Palladium, the Applicant shall submit verification to the City of Los Angeles Department of Building and Safety that a lead-based paint survey for the proposed area of alteration has been conducted. If lead-based paint is found for the proposed area of alteration, the Applicant shall follow all procedural requirements and regulations for its proper removal and disposal.

Enforcement Agency: Los Angeles Department of Public Works; CalEPA

Monitoring Agency: Los Angeles Department of Public Works

Monitoring Phase: Pre-construction; Construction if lead based paint is present

Monitoring Frequency: Once prior to Palladium building alterations; on-going during alterations if lead-based paint is found

Action Indicating Compliance: Compliance report by Project contractor

MM-HAZ-4: Fluorescent light ballast and other product labels for existing building features that might be altered during restoration activities for the Palladium shall be inspected prior to demolition. If the labels do not include the statement “No PCBs”, the product(s) shall be properly removed by a licensed PCB removal contractor and disposed of as PCB-containing waste prior to demolition.

Enforcement Agency: Los Angeles Department of Building and Safety; CalEPA

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic field inspections during alteration activities

Action Indicating Compliance: Compliance report by Project contractor

Hydrology and Water Quality

Project Design Features

No Project Design Features are proposed for Hydrology and Water Quality.

Mitigation Measures

No mitigation measures are required for Hydrology and Water Quality.

Land Use and Planning

Project Design Features

No Project Design Features are proposed for Land Use and Planning.

PDF-Land Use-1: Prior to the issuance of a building permit for above grade construction for the Project, the Applicant shall either (1) record a covenant to tie the Project Site’s two lots; or (2) record a phase of an approved tract map for the Project which merges the Site’s two lots into one master ground lot.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning

Monitoring Phase: Pre Construction

Monitoring Frequency: One prior to issuance of a building permit

Action Indicating Compliance: Review and sign-off by the Department of City Planning

Mitigation Measures

No Mitigation Measures are required for Land Use and planning.

Noise

Project Design Features

PDF-NOISE-1: Equipment Control: The Project contractor(s) shall equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers, consistent with manufacturers' standards.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic Field Inspections

Action Indicating Compliance: Field Inspection Sign-off within compliance report

PDF-NOISE-2: Vibration Control: As a precaution to avoid or minimize potential construction vibration damage, monitoring shall occur during excavation activities and during placement of foundation structures within 20 feet of the original Palladium building. Construction activities within this area shall utilize lower vibratory equipment options when they are available. In the event damage occurs, the monitor shall be authorized to halt construction activities until such activities are adjusted to avoid or minimize damage to the Building.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Daily observation during excavation/foundation work within 20 feet of the original Palladium building

Action Indicating Compliance: Field Inspection Sign-off within compliance report

PDF-NOISE-3: Control of Amplified Sound: The sound levels of amplified sound equipment in ground level open space areas shall be adjusted during Project operations to avoid exceeding the following limits at the Project property lines: For the property line along Argyle Avenue – 66 dBA; for the property line along Sunset Boulevard – 71 dBA; for the property line along El Centro Avenue – 66 dBA; and for the property line along Selma Avenue Properties – 62 dBA.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning
Monitoring Phase: Operations
Monitoring Frequency: Annually for first three years of Project operations
Action Indicating Compliance: Field inspection report

Mitigation Measures

MM-NOISE-1: Temporary construction noise barriers shall be implemented as follows:

- The Project shall ensure the provision of a 5 dBA noise barrier between the Project construction and the existing residential development on the northwest corner of Selma Avenue and Argyle Avenue (existing buildings between the residential development and the Project at the time of construction may contribute to the sound attenuation); and an 8 dBA, 16 foot high noise barrier between the Project and the Le Bon Hotel (allowing for a gate that may be opened from time to time for Site entry).
- If the following related projects adjacent to the Project Site (i.e. at Columbia Square, the Selma and Vine project, ~~the BLVD 6200 project south of Hollywood Boulevard, or 6250 Sunset project~~) are occupied by new residents at the time of Project construction, then temporary noise barriers shall be provided between the Project construction and those occupied units. Based on the exceedance of the thresholds noted in the above analysis (given the distance from the Project Site and existing sound levels at the respective locations), the barriers shall provide a sound reduction of 5 dBA between the Project Site and the 6250 Sunset project, and approximately 10 dBA between the Project and the remaining future projects.

Enforcement Agency: Los Angeles Department of Building and Safety
Monitoring Agency: Los Angeles Department of Building and Safety
Monitoring Phase: Construction
Monitoring Frequency: Periodic field inspections
Action Indicating Compliance: Field inspection sign-off; Compliance certification report submitted by Project contractor

MM-NOISE-2: Engine idling from construction equipment such as bulldozers and haul trucks shall be limited, to the extent feasible.

Enforcement Agency: Los Angeles Department of Building and Safety
Monitoring Agency: Los Angeles Department of Building and Safety
Monitoring Phase: Construction
Monitoring Frequency: Periodic field inspections
Action Indicating Compliance: Field inspection sign-off; Compliance certification report submitted by Project contractor

Population, Housing and Employment

Project Design Features

No Project Design Features are proposed for Population, Housing and Employment.

Mitigation Measures

No mitigation measures are required for Population, Housing and Employment.

Public Services-

Fire Protection

Project Design Features

PDF-FIRE-1: Fire and Emergency Service Provisions: The following Voluntary Fire and Emergency Medical Measures shall be provided for the long term operations of the Project.

- Owner supplied AED's (defibrillators) on selected floors to be used by on-site security as necessary. Security personnel to be fully trained on the use and operation of the AED's;
- Training on the AED's for tenant floor wardens and others; tenants to be encouraged to purchase their own AED's;
- CERT/first aid training for all floor wardens and others;
- CERT/first aid training made available and encouraged for all building occupants, if it can be accessed on-line;
- Joint trainings for LAFD personnel and building personnel site

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department

Monitoring Phase: Operations

Monitoring Frequency: Annually for first three years of Project operations

Action Indicating Compliance: Field inspection report

Mitigation Measures

MM-FIRE-1: Prior to the issuance of a building permit, the Applicant shall have additional consultation with the LAFD and shall incorporate all fire prevention and suppression features deemed appropriate by LAFD to the final design of the Project.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction

Monitoring Frequency: Once, prior to issuance of a building permit

Action Indicating Compliance: Approval of the plot plan by the Los Angeles Fire Department and Department of Building and Safety

MM- FIRE-2: Prior to the issuance of building permits, Project building plans including a plot plan and floor plan of the buildings shall be submitted for approval by the LAFD for review of all regulatory measures. The plot plan shall include the following minimum design features: location and grade of access roads and fire lanes, roadway widths, distance of buildings from an edge of a roadway of an improved street, access road, or designated fire lane, turning areas, and fire hydrants.

Enforcement Agency: Los Angeles Fire Department

Monitoring Agency: Los Angeles Fire Department; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction

Monitoring Frequency: Once, prior to issuance of a building permit

Action Indicating Compliance: Approval of the plot plan by the Los Angeles Fire Department and Department of Building and Safety

Police Protection

Project Design Features

PDF-POL-1: Project Security Features: The Project's security shall include, but not be limited to, the following design features:

- Installing and utilizing an extensive security camera network, with approximately 40-50 cameras throughout the underground and above-grade parking structure; the elevators; the common and amenity spaces; the lobby areas; and the rooftop and ground level outdoor open spaces.
- Maintaining all security camera footage for at least 30 days, and providing such footage to LAPD as needed.
- Maintaining approximately 30-40 staff on site, including at the lobby concierge desk and within the car valet areas. Designated staffers will be dedicated to monitoring the Project's security cameras and directing staff to locations where any suspicious activity is viewed.
- Requiring background checks of all residents, both prior to entering into a new lease at the Project, and prior to renewal of that lease.
- Controlling access to all building elevators, residences, and resident-only common areas through an electronic key fob specific to each user.
- Training staff on sound security policies for the Project's buildings.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department

Monitoring Phase: Operations

Monitoring Frequency: Annually for first three years of Project operations

Action Indicating Compliance: Field inspection report

PDF-POL-2: Site Uses: No nightclub shall be included in the Project, except that the Hollywood Palladium is permitted to continue its current operations as an event and concert venue.

Enforcement Agency: Los Angeles Department of City Planning

Monitoring Agency: Los Angeles Department of City Planning

Monitoring Phase: Pre-construction

Monitoring Frequency: Once at Project approval

Action Indicating Compliance: Certificate of occupancy

Mitigation Measures

MM- POL-1: Prior to the occupancy of the Project, the Applicant shall provide the Hollywood Area Commanding Officer with a diagram of each portion of the property, including access routes, and additional information to facilitate potential LAPD responses.

Enforcement Agency: Los Angeles Police Department

Monitoring Agency: Los Angeles Police Department; Los Angeles Department of building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Once, prior to certificate of occupancy

Action Indicating Compliance: Sign-off on LAPD reviewed diagrams; Certificate of occupancy

Schools

Project Design Features

No Project Design Features are proposed for schools.

Mitigation Measures

MM- SCH-1: The Project shall pay required school mitigation fees pursuant to Government Code Section 65995 and in compliance with SB 50 (payment of developer fees).

Enforcement Agency: Los Angeles Department of Building and Safety; LAUSD

Monitoring Agency: Los Angeles Department of Building and Safety; LAUSD

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once at Plan Check

Action Indicating Compliance: Receipt of payment from LAUSD

Libraries

Project Design Features

No Project Design Features are proposed for libraries.

Mitigation Measures

No Mitigation Measures are required for Libraries.

Parks and Recreation

Project Design Features

No Project Design Features are proposed for Parks and Recreation.

Mitigation Measures

MM- PRK-1: In the event that the Project's amenities do not provide sufficient credit against the Project's land dedication and/or in lieu fee requirement, the Project applicant shall do one or more of the following: (1) dedicate additional parkland to meet the requirements of LAMC Section 17.12; (2) pay in-lieu fees for any land dedication requirement shortfall; or (3) provide on-site improvements equivalent in value to said in-lieu fees.

Enforcement Agency: Los Angeles Department of Recreation and Parks; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Recreation and Parks; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-operations

Monitoring Frequency: Once prior to certification of occupancy

Action Indicating Compliance: Certificate of occupancy

Transportation and Circulation

Project Design Features

PDF-TRAF-1: A reciprocal easement agreement, or similar legal mechanism, shall be executed and recorded prior to issuance of final certificates of occupancy for the Project providing access for the Palladium lot located at 6221 Sunset Boulevard across the adjacent lot(s).

Enforcement Agency: Los Angeles Department of City Planning;

Monitoring Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-Construction

Monitoring Frequency: Once, prior to issuance of certificate of occupancy

Action Indicating Compliance: Completion of agreement per review for certificate of occupancy

Mitigation Measures

MM-TRAF-1: Off-site truck staging shall be provided in a legal area furnished by the construction truck contractor. Trucks may use access points along Selma Avenue, El Centro Avenue, Argyle Avenue and Sunset Boulevard as needed. Trucks shall not be permitted to travel along local residential streets.

- Enforcement Agency:** Los Angeles Department of Transportation;
- Monitoring Agency:** Los Angeles Department of Transportation; Los Angeles Department of Building and Safety
- Monitoring Phase:** Construction
- Monitoring Frequency:** Periodic field inspections
- Action Indicating Compliance:** Field inspection sign-off and compliance certification report submitted by project contractor

MM-TRAF-2: A ~~flagman~~ flagger shall be placed at the truck entry and exits from the Project site onto Selma Avenue, El Centro Avenue, Argyle Avenue and/or Sunset Boulevard to control the flow of exiting trucks.

- Enforcement Agency:** Los Angeles Department of Transportation;
- Monitoring Agency:** Los Angeles Department of Transportation; Los Angeles Department of Building and Safety
- Monitoring Phase:** Construction
- Monitoring Frequency:** Periodic field inspections
- Action Indicating Compliance:** Field inspection sign-off; Compliance certification.

MM-TRAF-3: With the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days, deliveries ~~Deliveries~~ and pick-ups of construction materials shall be scheduled during non-peak travel periods (avoiding the peak commute hours of 7:00 to 9:00 AM and 3:00 to 7:00 PM on weekdays) and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.

- Enforcement Agency:** Los Angeles Department of Transportation;
- Monitoring Agency:** Los Angeles Department of Transportation; Los Angeles Department of Building and Safety
- Monitoring Phase:** Construction
- Monitoring Frequency:** Periodic field inspections
- Action Indicating Compliance:** Field inspection sign-off; Compliance certification report submitted by Project contractor

MM-TRAF-4: Access shall remain unobstructed for land uses in proximity to the Project site during Project construction.

- Enforcement Agency:** Los Angeles Department of Transportation;

Monitoring Agency: Los Angeles Department of Transportation; Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic field inspections

Action Indicating Compliance: Field inspection sign-off; Compliance certification report submitted by Project contractor

MM-TRAF-5: Permanent lane or sidewalk closures are not anticipated for the Project long-term operations. Temporary lane or sidewalk closures, when needed for construction, shall be scheduled to avoid peak commute hours (7:00 to 9:00 AM and 3:00 to 7:00 PM on weekdays) and peak school drop-off and pick-up hours to the extent possible, with the exception of concrete trucks during the continuous concrete pour, which would last approximately 1-2 days. In the event of full-time lane or sidewalk closures for construction, a worksite traffic control plan, approved by the City of Los Angeles, shall be implemented to safely route traffic or pedestrians around any such lane or sidewalk closures.

Enforcement Agency: Los Angeles Department of Public Works

Monitoring Agency: Los Angeles Department of Public Works

Monitoring Phase: Construction

Monitoring Frequency: Once at time needed for closure is identified; Periodic field inspections during closure

Action Indicating Compliance: Field inspection sign-off; Compliance certification report submitted by Project contractor

MM-TRAF-6: A Construction Management Plan shall be developed by the contractor and approved by the City of Los Angeles. In addition to the measures identified above, a Construction Management Plan shall include the following:

- Identify the locations of the off-site truck staging and detail measures to ensure that trucks use the specified haul route, and do not travel through nearby residential neighborhoods.
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on the surrounding streets.
- Establish requirements for loading/unloading and storage of materials on the Project site.
- Establish requirements for the temporary removal of parking spaces, time limits for the reduction of travel lanes and closing or diversion of pedestrian facilities to ensure the safety of pedestrian and access to local businesses.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project site and neighboring businesses.
- During construction activities when construction worker parking cannot be accommodated on the Project site, a Construction Worker Parking Plan shall be prepared which identifies alternate parking location(s) for construction workers and the method of transportation to and from the Project site (if beyond walking distance) for approval by the City. The Construction Worker Parking Plan shall prohibit

construction worker parking on residential streets and prohibit on-street parking, except as approved by the City.

Enforcement Agency: Los Angeles Department of Transportation

Monitoring Agency: Los Angeles Department of Transportation

Monitoring Phase: Pre-construction; Construction

Monitoring Frequency: Once prior to issuance of Building Permit; Periodic field inspections during construction

Action Indicating Compliance with Mitigation Feature: Approval of Construction Traffic Management Plan from the Los Angeles Department of Transportation prior to issuance of Building Permit (Pre-construction); compliance certification report submitted by Project contractor (Construction)

~~**MM-TRAF-7:** The Project shall implement the following physical roadway improvements that can be provided within existing roadway widths without requiring removal of parking spaces:~~

- ~~▪ Intersection 2, Cahuenga Boulevard & Franklin Avenue. Modify the signal equipment and operation to allow a southbound protected left turn movement with a westbound right turn overlap. This improvement will require the southbound U-turns at the intersection to be restricted.~~
- ~~▪ Intersection 23, Gower Street & Franklin Avenue. Coordinate with the Columbia Square project and LADOT to arrange for a potential fair share contribution towards the implementation of an improvement proposed by the Columbia Square project that would upgrade the traffic signal equipment to allow for northbound right turn overlap.~~

~~**Enforcement Agency:** Los Angeles Department of Transportation; Department of Public Works~~

~~**Monitoring Agency:** Los Angeles Department of Transportation; Department of Public Works~~

~~**Monitoring Phase:** Pre-construction; Construction~~

~~**Monitoring Frequency:** Once at plan approval; on going during construction~~

~~**Action Indicating Compliance:** Sign-off on road construction plans; Sign-off on completed construction work~~

MM-TRAF -8Z: The Project shall upgrade traffic signal controllers from a Type 170 to a Type 2070 at the following seven intersections within the Project study area:

- Yucca Street and Wilcox Avenue.
- Selma Avenue and Wilcox Avenue
- De Longpre Avenue and Wilcox Avenue
- Cole Avenue and Fountain Avenue
- Cahuenga Avenue and Fountain Avenue
- El Centro Avenue and Fountain Avenue
- Fountain Avenue and Gower Street

Enforcement Agency:	Los Angeles Department of Transportation; Department of Public Works
Monitoring Agency:	Los Angeles Department of Transportation; Department of Public Works
Monitoring Phase:	Pre-construction; Construction
Monitoring Frequency:	Once at plan approval; on-going during construction
Action Indicating Compliance:	Sign-off on road construction plans; Sign-off on completed construction work <u>prior to issuance of certificate of occupancy.</u>

MM-TRAF-98: The Project shall implement a travel demand management (TDM) program, consistent with the recommendations of LADOT. The exact measures to be implemented will be determined when the plan is prepared, prior to issuance of a final certificate of occupancy for the Project. The TDM program shall ensure appropriate implementation of the Project's sidewalks/plazas, street trees/landscaping, street and pedestrian amenities, lighting and bicycle provisions to encourage alternative modes of transportation. It shall also include other features as appropriate, such as, for example, unbundled parking; (i.e. separating the cost of purchasing or renting parking spaces from the cost of purchasing or renting a dwelling unit); rideshare programs; (which could include the provision of an on-site transit and rideshare information center that provides assistance to help people form carpools or access transit alternatives, and/or priority parking for carpools); and/or a transit pass discount program, (that typically includes negotiating with transit service providers to purchase transit passes in bulk at a discounted rate with resale to interested residents or employees at discounted prices), identification of an on-site TDM coordinator, making information available to residents and employees regarding alternative transportation options, monitoring and surveying requirements, a guaranteed ride home program, participation in the LADOT Mobility Hubs program (which could include secure bike parking, bike-share kiosks, car-share parking spaces and services, and/or electric scooter-share), contributing a one-time fixed-fee of \$100,000 to be deposited into the City's Bicycle Trust fund to implement bicycle improvements within the area of the Project, and/or participation in the Hollywood Transportation Management Organization (TMO) to be created by other major employers in Hollywood within the next few years. The Project is also providing ample bicycle parking and on-site bicycle repair facilities in compliance with Los Angeles City Municipal Code requirements.

Enforcement Agency:	Los Angeles Department of Transportation
Monitoring Agency:	Los Angeles Department of Transportation; Los Angeles Department of Public Works
Monitoring Phase:	Pre-Operation; Operation
Monitoring Frequency:	Once prior to issuance of a final certificate of occupancy; Annually during first three years of operations
Action Indicating Compliance:	LADOT approval of Traffic TDM program; Annual consistency review

~~**MM-TRAF-10:** The Project shall fund and coordinate implementation of a Traffic Calming Plan to reduce Project impacts on El Centro Avenue between Santa Monica Boulevard and Sunset Avenue. The Plan shall be approved by LADOT and include community consultation~~

~~coordinated through the Council Office on the final selection of calming measures included. It shall include such physical measures as changes in street alignment, installation of barriers, speed humps, speed tables, raised crosswalks, chicanes, and chokers, and/or operational measures such as turn restrictions, speed limits, and installation of stop signs.~~

~~**Enforcement Agency:** Los Angeles Department of Transportation; Los Angeles Department of Public Works~~

~~**Monitoring Agency:** Los Angeles Department of Transportation; Los Angeles Department of Public Works~~

~~**Monitoring Phase:** Construction and operations~~

~~**Monitoring Frequency:** Once for plan approval; Periodic during construction of calming measures~~

~~**Action Indicating Compliance:** LADOT approval of Traffic Calming Plan; Compliance approval by LADOT~~

Utilites and Service System

Water Supply

Project Design Features

PDF-WS-1, Water Conservation Features: The Project shall provide a reduction in overall use of potable water by 30 percent, from that allowed under the California Building Code (CBC) per City Ordinance No. 181,480. Further, it shall include towards meeting this end the following water saving features:

- Showerheads – no more than one showerhead per stall at common residential, hotel, fitness and commercial uses;
- High Efficiency Clothes Washers (Commercial/Residential);
- Individual Metering or Submetering for water use at separate commercial uses;
- Water-Saving Pool Filter;
- Leak Detection System for swimming pool and Jacuzzi;
- Cooling Tower Conductivity Controllers or Cooling Tower pH Conductivity Controllers;
- Weather Based Irrigation Controller;
- Drought Tolerant Plants (as feasible at landscaping);
- California native plants - minimum 30% of total landscaping at ground level courtyards;
- Drip/subsurface irrigation (micro-irrigation);
- Hydro-zoning (group plants with similar water requirements);
- Zoned irrigation;
- Separate metering or submetering for exterior landscaping water use;
- Building commissioning to ensure systems are operating as designed;

- Weather Based Irrigation Controller;
- Rainwater Harvesting; and
- Landscaping Contouring to minimize precipitation runoff.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of City Planning (approval of measures and performance standards); Los Angeles Department of Building and Safety (Operation)

Monitoring Phase: Construction; Operation

Monitoring Frequency: Once prior to issuance of final certificate of occupancy; Annually during first three years of operation

Action Indicating Compliance: Issuance of final certificate of occupancy; Annual compliance certification report (Operation)

Mitigation Measures

No Mitigation Measures are required for Water Supply.

Wastewater

Project Design Features

No Project Design Features are proposed for Wastewater.

Mitigation Measures

No Mitigation Measures are required for Wastewater

Solid Waste

Project Design Features

No Project Design Features are proposed for Solid Waste.

Mitigation Measures

No Mitigation Measures are required for Solid Waste.

Electricity Service

Project Design Features

PDF-ELEC-1: Green Building Measures: The Project shall be designed and operated to meet or exceed the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the

USGBC LEED® Silver Certification level or its equivalent. Green building measures would include, but are not limited to the following:

- Overall building efficiency would exceed Title 24 (2013) Building Envelope Energy Efficiency Standards by 10 percent;
- Use of glass/window areas for ventilation and daylight accessibility;
- Landscaping of roof decks;
- Roof top areas would be energy efficient, including landscaped terraces at some locations, with the remaining roof-top areas using high-albedo/reflective roofs such as light-colored, build-up “white” roofs to reduce energy loads and enhance air quality;
- Trees and other landscaping (approximately 53,600 sq.ft. , inclusive of the pool and rooftop terraces, or 35 percent of the Site area, would provide shading and capture carbon dioxide emissions;
- Installation of energy-efficient appliances (Energy Star™);
- Glass/window areas for ventilation and daylight accessibility;
- Double-paned windows to keep heat out during summer months and keep heat inside during winter months;
- Lighting controls with occupancy sensors to take advantage of available natural light; and
- Elevator TV monitors with programming that would provide residents real-time updates on energy usage in the building and tips on how they can conserve energy.
- Occupancy-sensor controlled lighting in the parking structure.

Enforcement Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction; Operation

Monitoring Frequency: Annually during first three years of operation

Action Indicating Compliance: Annual compliance certification report (Operation)

Mitigation Measures

No Mitigation Measures are required for Electricity Services

Natural Gas

Project Design Features

No Project Design Features are proposed for Natural Gas.

Mitigation Measures

No Mitigation Measures are required for Natural Gas.

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Appendix A: Supplementary Aesthetics Appendix

**A-1. Francis Krahe and Associates, Lighting Technical Analysis,
Palladium Residences, Los Angeles, California, November 13,
2015.**



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LIGHTING TECHNICAL ANALYSIS

Palladium Residences

Los Angeles, California

November 13, 2015

Introduction:

The following report (the Report) is prepared by Francis Krahe & Associates Inc. for the Palladium Residences project (the Project), which consists of development of a mixed-use development of approximately 731 dwelling units and 24,000 square feet of retail and restaurant uses and enhancement of the existing Palladium. Two residential towers will be constructed on the existing Palladium surface parking lot; the new development and the Palladium are located on a single site. This Report evaluates the potential impact of new lighting from the residential components and retail activities of the Project onto the existing Palladium building, in particular, potential impact to the visibility of the existing Palladium Sign and night-time appearance of the building; and general effects to off-site sensitive uses and the lighting characteristics of the vicinity. The Report reviews the Project's proposed lighting to determine if there is light trespass and or new glare sources to determine if new lighting will create a significant impact. The evaluation focuses on the amount of new lighting relative to the existing lighting conditions that characterize the appearance of the Palladium, in particular to the brightness of the Palladium Marques and Blade Sign that dominates the building's night-time appearance, to determine if the new lighting adversely impacts the sign visibility.

1 Methodology

Light exposure within this Report is evaluated based on the following technical criteria:

- Light Trespass: the light that falls on a property but originates on an adjacent use or property. Light trespass is expressed in terms of *illuminance*¹, and measured in foot-candles (lumens per square foot) or the metric unit lux (lumens per square meter).
- Glare/Contrast: for exterior environments at night, glare occurs when the range of luminance in a visual field is too large. The calculated value which describes glare at an observer position for a particular view is referred to as contrast, and is determined by the variation of *luminance*² values within the field of view. "High," "Medium," and "Low" contrast are terms used to describe contrast ratios (the ratio of peak measured luminance to the average within a

¹ *Illuminance measures the amount of illumination (i.e., luminous flux) that falls on a given area from a light source. Luminous flux is defined as the mean value of total candelas produced by a light source, and describes the total amount of light emitted by a light source. The unit for measuring luminous flux is a lumen. Illuminance is measured in foot-candles (lumen per square foot, or the light energy within one square foot surface one foot away from a standard candle). Illuminance decreases with the square of the distance from the light source.*

² *Luminance describes the brightness of an illuminated surface. Luminance is a measure of reflected light from a specific surface in a specific direction over a standard area. It is measured in footLamberts (candelas per square foot). A candela is defined as a measure of light energy from a source at a specific standard angle and distance.*

field of view) of greater than 30:1, between 10:1 and 30:1, and below 10:1 , respectively. Contrast ratios above 30:1 are uncomfortable for the human eye to perceive.

2. Regulatory Framework

2.1 Los Angeles Municipal Code

The City of Los Angeles regulates lighting with respect to building and safety, transportation, and light trespass (i.e., the spillover of light onto adjacent light-sensitive properties). The City also enforces the building code requirements of the California Building Code 2013, The California Green Building Standards Code 2013 (CALGreen), and the California Electrical Code 2013. Exterior lighting, such as streetlights and are regulated by the Los Angeles Municipal Code (LAMC). Applicable regulations for the Project Site include the following:

- Chapter 1, Article 2, Sec. 12.21 A 5(k). All lights used to illuminate a parking area shall be designed, located and arranged so as to reflect the light away from any streets and adjacent premises.
- Chapter 1, Article 4.4, Sec. 14.4.4 E. No sign shall be arranged and illuminated in such a manner as to produce a light intensity greater than 3 foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property.
- Chapter 1, Article 7, Sec. 17.08 C. Plans for street lighting shall be submitted to and approved by the Bureau of Street Lighting for subdivision maps.
- Chapter 9, Article 3, Div. 1, Sec. 93.0117(b). No exterior light may cause more than 2 foot-candles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units. Chapter 9, Article 9, Division 5, Sec 99.05.106.8. Comply with lighting power requirements in the California Energy Code, California Code of Regulations, Title 24, Part 6. Meet or exceed exterior light levels and uniformity ratios for lighting zone 3 as defined in Chapter 10 of the California Administrative Code, Title 24, Part 1.

2.2 California Code of Regulations, Title 24

Title 24 of the California Code of Regulations (CCR), also known as the California Building Standards Code, consists of regulations to control building standards throughout the State. The following components of Title 24 include standards related to lighting:

California Building Code (Title 24, Part 1) and California Electrical Code (Title 24, Part 3)
The California Building Code (Title 24, Part 1) and the California Electrical Code (Title 24, Part 3) stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress. All Project lighting will comply with the requirements of the California Building Code.

California Energy Code (Title 24, Part 6)
The California Energy Code (CEC) stipulates allowances for lighting power and provides lighting control requirements for various lighting systems, with the aim of reducing energy consumption through efficient and effective use of lighting equipment.

Section 130.2 sets forth requirements for Outdoor Lighting Controls and Luminaire Cutoff requirements. All outdoor luminaires rated above 150 watts shall comply with the backlight, up light, and glare "BUG" in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40% dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to street lights for the public right of way, signs or building façade lighting.

Section 140.7 sets forth outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. The lighting allowances are provided by Lighting Zone, as defined in Section 10-114 of the CEC. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3. Additional allowances are provided for Building Entrances or Exits, Outdoor Sales Frontage, Hardscape Ornamental Lighting, Building Façade Lighting, Canopies, Outdoor Dining, and Special Security Lighting for Retail Parking and Pedestrian Hardscape.

Section 130.3 stipulates sign lighting controls with any outdoor sign that is ON both and day and night must include a minimum 65 percent dimming at night. Section 140.8 of the CEC sets forth lighting power density restrictions for signs.

California Green Building Standards Code (Title 24, Part 11)
The California Green Building Standards Code, which is Part 11 of Title 24, is commonly referred to as the CALGreen Code. Paragraph 5.1106.8 Light pollution reduction, defines all non-residential outdoor lighting must comply with the following:

- The minimum requirements in the CEC for Lighting Zones 1–4 as defined in Chapter 10 of the California Administrative Code; and
- Backlight, Uplight and Glare (BUG) ratings as defined in the Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07); and

- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.8³ of the CALGreen Code (excerpt included in the Appendix); or
- Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

3. IESNA Recommended Practices

The Illuminating Engineering Society of North America (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and are therefore a consistent predictor of the type and direction of illumination for any given building type. For all areas not stipulated by the regulatory building code, municipal code or specifically defined requirements, the IESNA standards are used as the basis for establishing the amount and direction of light for the Project.

The IESNA 10th Edition Lighting Handbook defines Outdoor Lighting Zones relative to a range of human activity versus natural habitat. Table 26.4, Nighttime Outdoor Lighting Zone Definitions, included in the Appendix hereto, establishes the Zone designation for a range of existing lighting conditions, from low or no existing lighting to high light levels in urban areas. Table 26.4 is referenced by the California Energy Code Title 24 in section 10-114 of the CEC and section 140.7 relative to allowable energy use for outdoor lighting. In addition, the IESNA 10th Edition Lighting Handbook defines Recommended Light Trespass Limits in Table 25.5, included in the Appendix hereto, relative to the Outdoor Lighting Zones. The Recommended Light Trespass Illuminance Limits describe the maximum light trespass values in Lux at the location where trespass is under review. As noted above, the CEC stipulates that all urban areas in California are designated as Lighting Zone 3. IESNA Table 25.5, lists a Pre-curfew 8 Lux (0.74 foot-candles) maximum at the location where trespass is under review for Zone 3.

4. Significance Threshold

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to aesthetics, including light and glare. The question that pertains to light and glare is as follows:

Would the project:

³ Table 5.106.8, Footnote 2 defines the location of the Property Line for the purpose of evaluating compliance with the BUG ratings and provides that: "For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section." See Appendix A.

- Create a new source of substantial light and glare which would adversely affect day or nighttime views in the area?

In the context of this question from Appendix G of the CEQA Guidelines, the *City of Los Angeles CEQA Thresholds Guide* states that the determination of significance shall be made on a case-by case- basis, considering the following factors:

- The change in ambient nighttime levels as a result of project sources; and
- The extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas.

Based on these factors and the LAMC requirements identified above, the Project would have a significant impact with regard to artificial light or glare if:

- The Project generates light intensity levels of 0.74 foot-candles or more at the location where light trespass is under review⁴, where lighting would exceed the trespass standards of the IESNA.
- The Project generates light intensity levels of 2.0 foot-candles or more at the property line of a residence or other sensitive receptor from exterior on-site light sources.⁵
- The Project generates light emissions associated with an illuminated sign that produces a light intensity exceeding 3.0 foot-candles at the property line of a residence or other sensitive receptor.
- The Project creates new high contrast conditions visible from a field of view from a sensitive receptor.
- The Project incorporates substantial amounts of highly reflective building materials or signage (i.e., daytime glare in areas that are highly visible to off-site glare-sensitive uses).

The Draft EIR for the Project, based on the above guidance included a significance threshold, AES-3, which stated that “a project would have a significant impact on light and glare if it: Includes lighting or glare (during either construction or operations) that would substantially alter the character of off-

⁴ *The IESNA addresses light trespass Illuminance levels at the project boundary. To provide a conservative analysis, potential lighting impacts are based on the property line boundary as defined by the 2013 Cal Green, paragraph 5.106.8.*

⁵ *The LAMC addresses lighting intensity levels at the property line of the nearest off-site residence or other light-sensitive use.*

site areas surrounding the project site, or results in substantial light spill/or glare onto adjacent light-sensitive receptors. The significance thresholds used for this study provide more detailed criteria for purposes of this Lighting Technical Analysis; and are consistent with the thresholds in the Project's EIR.

5 Existing Conditions

Francis Krahe & Associates Inc. surveyed the existing conditions along Sunset Boulevard to the West, South, and East of the project site. Measured values of the existing lighting conditions surrounding the Project site and adjacent to the Palladium are summarized in Tables 1 and 2. Measurements were taken in accordance with IESNA recommended practice.

Table 1 lists the measured Illuminance along Sunset Boulevard at the north and south sidewalk, from 6335 Sunset to the intersection of Sunset and Gower. Luminance measurements were conducted with a Minolta Illuminance Meter on October 27, 2015, from 8:00 to 9:00 pm. Horizontal Illuminance measurements were recorded with the light meter held horizontally and the photo sensor at 180 degrees from nadir. All values recorded below were measured at grade.

Table 1: Existing Illuminance

Location	Sunset Blvd.	
	South Side	North Side
6225 Sunset Blvd.:	1.97	2.05
Sunset / Argyle (West):	1.28	2.23
Sunset / Argyle (East):	2.08	2.05
Palladium (@ center of marquis)	1.97	6.60
Palladium (@ edge of marquis)	1.35	5.90
Sunset / El Centro	3.09	1.77
Gower Gulch Sign (South), 6130 Sunset (North):	1.42	1.69
Sunset & Gower Intersection (West):	5.45	1.89

Table 2 lists the measured luminance at sign and building surfaces fronting along Sunset Boulevard in the vicinity of the Palladium Sign, from 6335 Sunset to the intersection of Sunset and Gower. The surfaces measured were examples of relatively bright surfaces within the view of the sign, in the background of the view, or adjacent to the Project site. The measured locations are also presented in

the photographs following Table 2. Luminance measurements were conducted with a Minolta Luminance Meter, model #LS-100, on November 1, 2015, from 8:00 to 9:00 pm.

Table 2: Existing Luminance

Location	(footLamberts)
6225 Sunset Blvd. Retail:	0.17
6225 Sunset Blvd. Office Façade:	1.35
Palladium (@ center of sign column)	37.62
Palladium (@ marquis)	73.64
6130 Sunset (Gower Gulch Sign)	91.73
Apple Sign	53.67
6121 Sunset Blvd (2nd Floor)	4.56
6121 Sunset Blvd (1st Floor)	7.94
6255 Sunset Blvd	13.26

The existing Palladium sign consists of parallel rows of illuminated neon tubes, with a surface brightness of 37.62 to 73.64 footLamberts.

The existing conditions surrounding the Palladium sign include views where the Palladium sign is visible in the foreground, and illuminated buildings, signs, and street lights, are visible in the background (see Figure 1 through 7 below). The existing illuminated surfaces surrounding the Palladium are a part of a well illuminated, urban condition. These existing illuminated surfaces do not interfere with the visibility of the Palladium sign due to the relatively high brightness of the Palladium sign. Even when the sign view includes the brightly lit interior of the office space of 6121 Sunset Boulevard, the sign is still clearly visible and prominent (see Figure 1 and 7 below).

Figure 1 shows the view of the Palladium and sign from along Sunset Boulevard to the west of the project site, including the view of the 6121 Sunset Boulevard office building in the background. This photo demonstrates that the existing conditions include views of the Palladium sign with lighted surfaces in the background. The Palladium Marques and Blade Sign are clearly visible and much brighter than the lighted surfaces within the buildings in the background. The residential uses will be viewed within the context of the existing lighted buildings and lights along Sunset Boulevard.

The luminance of the lighted interior surface within the 6121 office building is listed in Table 2 above at 4.56 footLamberts. This surface is much lower brightness than the Palladium sign at 37.62 footlamberts. City of Los Angeles street lights along Sunset Boulevard provide a consistent illumination of the street, sidewalks, and the adjacent building elevations at more than 2.0 foot-candles.



FIGURE 1: SUNSET BOULEVARD WEST OF ARGYLE AVENUE

Figure 2 is a photo from the north side of Sunset Boulevard, west of the Palladium at night, at the intersection of Sunset and Argyle. The Palladium Marques and Blade Sign are visible at night within a well lit, urban street context, which includes bright street lights, lights within buildings, and signs within the same view. The new residential uses will be viewed within the existing, well illuminated street context.



FIGURE 2: PALLADIUM SIGN VIEWED FROM WEST

Figure 3 is a photo of the Palladium Façade, Blade Sign and Marquee along Sunset Boulevard, with lighted billboards in the background to the north of the Project site. These lighted billboards are a common feature in the vicinity of the Palladium site and the surrounding area, which is a bright, urban area. The new residential uses will be viewed within the existing, well illuminated street context.



FIGURE 3: PALLADIUM MARQUIS FROM SOUTH SIDE OF SUNSET BOULEVARD

Figure 4 is a photo from the south side of Sunset Boulevard directly opposite of the Palladium Marques and Blade Sign at night. The new residential uses will be viewed within the existing, well illuminated street context.



FIGURE 4: PALLADIUM FROM SOUTH SIDE OF SUNSET BOULEVARD

Figure 5 is a photo from the north side of Sunset Boulevard, east of the Project site, east of the El Centro intersection, viewing west toward the Palladium Marques and Blade Sign at night. The sign is clearly visible within this view. The Project residential towers will not be visible from the east near this location due to the set back of the west tower and the height of the office tower at 6121 Sunset, which blocks the view of the east tower.



FIGURE 5: PALLADIUM SIGN VIEWED FROM EAST, NEAR EL CENTRO INTERSECTION

Figure 6 is a photo from the south east of the Project site, viewed from the south side of Sunset Boulevard west of the El Centro intersection with Sunset Boulevard. The view of the Palladium Marques and Blade Sign at night in the foreground includes the office building façade in the background at 6225 Sunset Boulevard. Illuminated windows within the office building form a portion of the background to the sign, and do not interfere with the visibility of the sign.

A portion of the Project west tower will be visible within this view to the right and above the Palladium sign, within the context of the well lit area.



FIGURE 6: PALLADIUM SIGN FROM SOUTH EAST

Figure 7 is a photo from the north side of Sunset Boulevard, east of the Project site, toward the Palladium sign and marquees at night. The office space at 6121 Sunset Boulevard is to the right in the foreground, and the luminance is recorded in Table 2 at 7.94 footLamberts at the ground floor and 4.56 footLamberts at the second floor. The Palladium Marques and Blade Sign are visible in the distance. The new residential uses will be viewed within the existing, well illuminated street context.

The Project residential towers will not be visible from this location.



Figure 7: Palladium sign from east

The photos above in Figures 1 through 7 and measurements presented in Tables 1 and 2 describe the lighting conditions along Sunset Boulevard, from the Argyle intersection west of the Project site, to the immediate south of the site, and to the east up to the Gower street intersection. These images and the corresponding measured values of illuminance and luminance describe a well lighted, urban environment. The Palladium Marques and Blade Sign are clearly visible along this stretch of Sunset Boulevard, even with illuminated buildings, street lights, and billboards in the background. The data measured illustrate that the Palladium Marques and Blade Sign are much brighter than the surrounding building surfaces, even those with bright interior or exterior lighting, such as 6121 Sunset Boulevard.

5. Project Lighting Effects

The Project will include new exterior and interior lighting for the safety, security, and nighttime use of the Project.

Exterior lighting will be installed at all building exits and walkways to meet the code required standards for safety illumination, and at the drive lanes and landscaped areas at grade for circulation and use of the building exterior at night. Exterior site lighting for the Project residential towers will be primarily mounted at or below the roof elevation of the existing Palladium building, and will not be directly visible from the areas along Sunset Boulevard where the sign is visible. Exterior building accent lighting may include lights at building balconies and lights within or onto the building exterior façade.

Interior lighting within the residential towers may be visible from surrounding properties and the areas to the west, south, and east of the Project site, where the Palladium sign may also be visible. The residential towers will include lights within the building from grade to the penthouse such as within the residential units, and within the ground level lobby and amenity spaces. Interior lighting will consist of typical residential light fixtures, such as lamps and ceiling mounted fixtures. New lighting will also be provided within the retail spaces along Sunset Boulevard, including the activation of the vacant retail space within the Palladium building facing Sunset Boulevard. The retail lighting will be comprised of interior lighting with tenant identification, and would be similar to other retail uses in the Project vicinity.

5.1 Light Trespass

All of the Project light fixtures must be located or designed to limit light trespass as per the Los Angeles Municipal Code and the California Title 24 Cal Green code. Therefore, new Project lighting will not generate measurable light incident onto the Palladium historic south façade (facing Sunset Boulevard) in excess of these regulatory standards which limit light impact from direct illumination from the Project to offsite or sensitive uses. The distance to the Palladium sign is greater than the distance to the surrounding property boundaries. The most conservative limit of exterior lighting is defined within the Title 24 Cal Green code, which specifies the maximum light trespass as 8 lux or 0.74 footcandles at the center of the adjacent public way.

Since light intensity decreases exponentially with distance⁶ the light reaching the Palladium sign will be much lower than the existing conditions and will not present a significant light trespass condition. For example, a light source which delivers 5 foot-candles at a distance of 10 feet would provide 0.05 foot-candles at 100 feet. The horizontal distance from the Palladium Marques and Blade Sign on

⁶ *The Inverse Square Law shows that the intensity of light diminishes at the square of the distance traveled. See the definition of "Illuminance" in Section 7, Glossary of Lighting Terminology for additional discussion.*

Sunset Boulevard would be approximately 200 feet to the western tower, (which is setback from Sunset Boulevard by approximately 125 feet) and 241 feet from the tower behind the building. The building façade and exterior lighting designed to not exceed 0.74 foot-candles at 40 feet or less (distance to the center of the adjacent Argyle Street right of way), will generate 0.03 foot-candles at 200 ft and 0.02 footcandles at 241 feet. These illuminance values are far less than the ambient conditions along Sunset Boulevard (See Table 1 above). The average measured value is 2.3 foot candles along this stretch of Sunset Boulevard, which represent the existing baseline background illuminance level for the Palladium Marques and Blade Sign vicinity.

5.2 Glare and Contrast

As travelers approach the Palladium from the east and the west, the backdrops for the Palladium frontage and signs are the existing offices and other buildings in the immediate vicinity. There will be a limited area along the south side of Sunset Boulevard from Argyle to El Centro streets where the Palladium Marques and Blade Sign can be viewed simultaneously with the Project residential towers visible in the background (see photos in Figures 1 through 7 above). From these viewpoints, the residential tower exterior and interior lighting will be visible at night and will blend in with the existing well-lit cityscape. The residential towers will be most visible when viewed directly across from the Palladium. This viewpoint occurs from the south side of Sunset Boulevard only. From this viewpoint, the sign is approximately 70 feet from the observer's position and the towers would be setback over 200 feet behind the Palladium Marques and Blade Sign.

Exterior lighting will conform to the requirements of California Title 24 with respect to glare and shielding, as defined by California Green Building Standards Code (Title 24, Part 11), including Paragraph 5.1106.8 Light pollution reduction, which requires all outdoor lighting must comply with the following Backlight, Uplight and Glare (BUG) ratings as defined in the Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07), and that the allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.87 of the CALGreen Code. The net effect of these code regulations is that all outdoor lighting must be constrained to limit direct view of the light source and to direct light primarily downward, and within the envelope of the new development. These regulations will preclude the introduction of glare sources within the exterior lighting of the Project. In addition, California Title 24 limits the extent of outdoor lighting in relation to the site area to conserve energy. The net effect of this energy code is to reduce the energy applied to outdoor lighting, which limits the corresponding light intensity and reduces the amount of light directed up into the sky.

⁷ Table 5.106.8, Footnote 2 defines the location of the Property Line for the purpose of evaluating compliance with the BUG ratings and provides that: "For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section." See Appendix A.

Interior lighting will consist of typical residential light fixtures, including lights within the living units, such as lamps and ceiling mounted fixtures. The brightness of these light sources are much lower than the commercial light sources in the Project vicinity, such as those found in adjacent office interiors, signs or in street level retail interiors. Residential interior lighting is lower intensity and will present lower surface brightness than a commercial interior office space (see IESNA Table 32.2 Office Facilities Illuminance Recommendations, and Table 33.2 Residential Facilities Illuminance Recommendations). The recommended illuminance values for office interiors range from 10 to 50 footcandles, and are 2 to 3 times the recommended values for most spaces within a residence. The measured luminance values of the office interior spaces at 6121 Sunset Boulevard are approximately 5 footLamberts. Since the Project lighting for residential interiors will be less half these measured values, an estimated value of 2.5 footLamberts may be used as a comparison to the existing Palladium Blade Sign, with a surface illuminance of 37.62 footLamberts, or more than 15 times the estimated residential values.

The brightness of interior lighting emanating from the towers that would be visible at Sunset Boulevard would be further reduced by the shading coefficient of the exterior glass window wall of the Project and any blinds or window curtains. The maximum light transmission percentage through the glass is less than 70%. Window shades and blinds will further reduce the visible brightness by an additional 50% for shear curtains to 100% for black out shades or blinds. The net result of these shading devices is the reduction of the maximum brightness of light sources within the Project to brightness values consistent with or less than other existing buildings in the vicinity of the Palladium Marques and Blade Sign.

The Project will produce luminance values which are similar to, or lower than the existing office buildings adjacent to the Palladium site. The lighting within these existing buildings does not diminish the view of the Palladium sign. Therefore the brightness of the Project exterior and interior lighting, viewed within the context of the Palladium Marques and Blade Sign, will not diminish the visibility of the Palladium Marques and Blade Sign.

6.0 Conclusions:

The Project lighting will not cause significant impacts on nearby sensitive uses nor substantially alter the appearance of the Palladium along Sunset Boulevard, notably not impacting the visibility of the Palladium Marques and Blade Sign. Project lighting will not exceed the light trespass limits set by the Los Angeles Municipal Code and California Title 24, which will limit light from the Project onto off-site sensitive uses and the existing Palladium frontage on Sunset Boulevard. The Project exterior and interior lighting will not present a source of glare or high contrast since this lighting will be designed in compliance with California Title 24, and will utilize lighting for a residential application. Interior lighting will be of similar or lower brightness than surrounding existing commercial buildings along Sunset Boulevard, therefore the new lighting will not adversely affect the visibility of the Palladium Marques and Blade Sign.

7 Glossary of Lighting Terminology

Discussions of lighting issues include precise definitions, descriptions or terminology of the specific lighting technical parameters. The following glossary summarizes explanations of the technical lighting terms utilized within the Study and the related practice standards to facilitate discussion of these issues. The following technical terms are presented in this Study.

- Brightness:** The magnitude of sensation that results from viewing surfaces from which light comes to the eye. This sensation is determined partly by the measurable luminance of the source and partly by the conditions of observation (Context), such as the state of adaptation of the eye. For example, very bright lamps at night appear dim during the day, because the eye adapts to the higher brightness of daylight.
- BUG Rating:** A luminaire classification system established in *IES TM-15-07*, BUG Ratings Addendum that provides for uniform assessment of the directional characteristics of illumination for exterior area lighting. BUG is an acronym composed of Backlight, Uplight, and Glare. BUG ratings are based on a zonal lumen calculations for secondary solid angles defined in *IES TM-15-07*.
- Candela:** Measure of light energy from a source at a specific standard angle and distance. Candela (cd) is a convenient measure to evaluate output of light from a lamp or light fixture in terms of both the intensity of light and the direction of travel of the light energy away from the source. The Luminous Flux from a 100-watt household incandescent lamp at 90 degrees (horizontal) is approximately 150 candelas, and from a 200 watt incandescent lamp is approximately 300 candelas.
- Context:** The unobstructed portion of the field of view that is available from any particular location. Field of view refers to 60 degree by 120 degree cone of view, observable while looking toward the project, from a given viewpoint. Context may be expressed as the proportion of the available field of view that is unobstructed. For example, if a particular viewpoint has views toward the project site, but large trees and fencing in the foreground obstruct 20 percent of the field of view, the context would be 80 percent [Context = (100 percent of the field of view) – (the proportion of foreground obstructions)].
- Contrast:** Calculated evaluation of high, medium and low contrast of visible light sources or surfaces within the Project Site by a ratio of luminance values. Contrast is the ratio of one surface luminance to a second surface

luminance or to the field of view. Contrast values exceeding 30 to 1 are usually deemed uncomfortable; 10 to 1 are clearly visible; and less than 3 to 1 appear to be of equal value.

Coverage:

The proportion of the unobstructed field of view (i.e. the context) from a particular location that is occupied by the project site. Generally, the smaller the proportion of the unobstructed field of view occupied by the project site, the less influence the project site has on the total view. For instance, if half of the available context is occupied by the project site, coverage would be 50 percent [Coverage = (100 percent of the context) – (the area not visually occupied by the project site)]

Extent:

Visual description of prominence of the Project Site and lighting elements within the field of view. Describes visible illuminated features, and the extent of the field of view (180 degrees) covered by the Project Site and illuminated objects.

Fully Shielded:

A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the Luminaire, is projected below the horizontal as determined by photometric test or certified by the manufacturer. Any structural part of the light fixture providing this shielding must be permanently affixed. In other words, no light shines above the horizontal from any part of the fixture.

Glare:

Glare is visual discomfort experienced from high contrast. For exterior environments at night, glare occurs when the range of luminance in a visual field is too large. The light energy incident at a point is measured by a scale of footcandles or lux, and is described in the technical term Illuminance. This incident light is not visible to the eye until it is reflected from a surface, such as pavement, wall, dust in the atmosphere or the surface of a light bulb. The visible brightness of a surface is measured in footLamberts (or candelas per square meter) and is described by the term Luminance.

The human eye processes brightness variations across a very broad spectrum of intensities. The ratio of brightness values generated by direct noon sun versus a moonlight evening is over 5000 to 1. Eyes can accommodate this range of intensities given adequate time to adjust. However, the eye cannot process brightness ratios of more than 30 to 1 within a view without discomfort.

For the purpose of this analysis, brightness of light sources may be described subjectively by the following criteria:

High Contrast Conditions: View of light fixture emitting surface, such as a lens, reflector, or lamp, where brightness contrast ratio exceeds 30 to 1 (source Luminance to background Luminance ratio in footLamberts).

Medium Contrast Conditions: Brightly lighted surfaces where contrast ratio exceeds 10 to 1, but is less than 30 to 1 (lighted surface Luminance to background Luminance ratio in footLamberts).

Low Contrast Conditions: Illuminated surfaces where contrast ratio exceeds 3 to 1, but less than 10 to 1 (source Luminance to background Luminance ratio in footLamberts).

Illuminance: Illuminance is the means of evaluating the density of Luminous Flux. It indicates the amount of Luminous Flux from a light source falling on a given area. Illuminance is measured in footcandle (fc), which is lumen per square foot, or Lux (lumen per square meter). Illuminance need not necessarily be related to a real surface. It can be measured at any point within a space. Illuminance can be determined from the Luminous intensity of the light source. Illuminance decreases with the square of the distance from the light source (Inverse Square Law).

Horizontal Illuminance: Illuminance incident upon a horizontal plane. The orientation of the illuminance meter or calculation point will be 180° from Nadir.

Vertical Illuminance: Illuminance incident upon a vertical plane. The orientation of the illuminance meter or calculation point will be 90° from Nadir.

Light Output Direction: Luminaires for general lighting are classified in accordance with the percentages of total luminaire output emitted above and below horizontal. The light distribution curves may take many forms within the limits of upward and downward distribution, depending upon the type of light and the design of the luminaire.

Lighting Array: An installation of multiple light sources or lamps where the distance between each lamp or light source within the Lighting Array is less than 5 feet on center in any direction from any other source.

Light Source: Device which emits light energy from an electric power source.

Light Trespass:	Electric light from subject property incident onto adjacent properties, measured in footcandles or lux, usually analyzed by measurement at or near the adjacent property line.
Lighting Zone LZ3:	Outdoor areas of human activity where the vision of human residents and users is adapted to moderately high light levels. Lighting is generally desired for safety, security and/or convenience.
Luminaire:	A complete lighting unit consisting of a lamp or lamps and ballast(s) (when applicable) together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply. Also referred to as a Light Fixture.
Luminaire Cutoff:	<p>A classification system created by the IESNA to describe light distribution from exterior luminaires.</p> <p>Full cutoff: A Luminaire light distribution where zero Candela intensity occurs at or above an angle of 90° above Nadir. Additionally, the Candela per 1,000 lamp lumens does not numerically exceed 100 (10 percent) at or above a vertical angle of 80° above Nadir. This applies to all lateral angles around the luminaire.</p> <p>Cutoff: A luminaire light distribution where the candela per 1,000 lamp lumens does not numerically exceed 25 (2.5 percent) at or above an angle of 90° above Nadir, and 100 (10 percent) at or above vertical angle 80° above Nadir. This applies to all lateral angles around the Luminaire.</p> <p>Semi-cutoff: A luminaire light distribution where the candela per 1,000 lamp lumens does not numerically exceed 50 (5 percent) at or above an angle of 90° above Nadir, and 200 (20 percent) at or above vertical angle 80° above Nadir. This applies to all lateral angles around the Luminaire.</p> <p>Non-cutoff: A luminaire light distribution where there is no Candela limitation in the zone above maximum Candela.</p>
Luminance:	Luminance is a measure of emissive or reflected light from a specific surface in a specific direction over a standard area. Luminance is measured in footLamberts (fL) (Candela per square foot) or cd/m ² (Candela per square meter). 1fL = 3.43 cd/m ² .

Whereas Illuminance indicates the amount of Luminous Flux falling on a given surface, Luminance describes the brightness of an illuminated or luminous surface. Luminance is defined as the ratio of luminous intensity of a surface (Candela) to the projected area of this surface (m^2 or ft^2).

Luminous Flux:

Mean value of total Candelas produced by a light source. Luminous Flux describes the total amount of light emitted by a light source. The unit for measuring Luminous Flux is Lumen (lm).

This radiation could basically be measured or expressed in watts. This does not, however, describe the optical effect of a light source adequately, since the varying spectral sensitivity of the eye is not taken into account. To include the spectral sensitivity of the eye the Luminous Flux is measured in lumen. Radiant Flux or 1 W emitted at the peak of the spectral sensitivity (in the photopic range at 555 nanometers produces a Luminous Flux of 683 lumen). The unit of lumen does not define direction.

Skyglow:

Skyglow is the description of luminous atmospheric background and results from both natural and human made conditions. Natural causes of skyglow include sunlight reflected from the surface of the earth and moon, sunlight illuminating the upper atmosphere, and visible illumination from other interplanetary sources. Human made causes of skyglow include electric light that is emitted directly upward into the sky (Uplight), or reflected off of the ground. Such light illuminates the aerosol particles within the atmosphere and results in a luminous background.

Uplight:

Uplight is the primary cause of skyglow and can be differentiated into two zones, (1) Lower Uplight and (2) Upper Uplight. Lower uplight describes light between 90° and 100° above nadir. Most skyglow is caused by Lower Uplight. Upper Uplight results primarily in energy waste.

APPENDIX A

The IESNA 10th Edition Lighting Handbook, Table 26.4, Nighttime Outdoor Lighting Zone Definitions

Table 26.4 | Nighttime Outdoor Lighting Zone Definitions

Zone	Outdoor Lighting Situation	Definition
LZ4	High Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to high light levels. Lighting is generally considered necessary for safety, security and/or convenience and it is mostly uniform and/or continuous. After curfew, lighting may be extinguished or reduced in some areas as activity levels decline.
LZ3	Moderately High Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to moderately high light levels. Lighting is generally desired for safety, security and/or convenience and it is often uniform and/or continuous. After curfew, lighting may be extinguished or reduced in most areas as activity levels decline.
LZ2	Moderate Ambient Lighting	Areas of human activity where the vision of human residents and users is adapted to moderate light levels. Lighting may typically be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, lighting may be extinguished or reduced as activity levels decline.
LZ1	Low Ambient Lighting	Areas where lighting might adversely affect flora and fauna or disturb the character of the area. The vision of human residents and users is adapted to low light levels. Lighting may be used for safety and convenience but it is not necessarily uniform or continuous. After curfew, most lighting should be extinguished or reduced as activity levels decline.
LZ0	No Ambient Lighting	Areas where the natural environment will be seriously and adversely affected by lighting. Impacts include disturbing the biological cycles of flora and fauna and/or detracting from human enjoyment and appreciation of the natural environment. Human activity is subordinate in importance to nature. The vision of human residents and users is adapted to the darkness, and they expect to see little or no lighting. When not needed, lighting should be extinguished.

The IESNA 10th Edition Lighting Handbook, Table 26.5, Recommended Light Trespass Illuminance Limits

Table 26.5 | Recommended Light Trespass Illuminance Limits

Lighting Zone	Limit in lux ^a	
	Pre-curfew	Post-curfew
LZ4	15	6
LZ3	8	3
LZ2	3	1
LZ1	1	0
LZ0	0.1	0

- a. Maximum initial illuminance on a plane perpendicular to the line of sight to the luminaire(s). Plane located at observer position where light trespass is under review. [7]

2013 California Green Building Standards Code Section 5.106.8

NONRESIDENTIAL MANDATORY MEASURES

vides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.

5.106.8 Light pollution reduction. [N] Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the *California Energy Code* for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
3. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or

Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Section 140.7 of the *California Energy Code*.
2. Emergency lighting.

Note: [N] See also *California Building Code*, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales,
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

TABLE 5.106.8 [N]
MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS^{1,2}

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
Maximum Allowable Backlight Rating³				
Luminaire greater than 2 mounting heights (MH) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1 – 2 MH from property line	B2	B3	B4	B4
Luminaire back hemisphere is 0.5 – 1 MH from property line	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	B0	B0	B1	B2
Maximum Allowable Uplight Rating				
For area lighting ⁴	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	U1	U2	U3	U4
Maximum Allowable Glare Rating⁵				
Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1 – 2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5 – 1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.
2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.
3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.
4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting."
5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

**A-2. Zoning Information File No 2452 - Aesthetics and Parking
Under SB 743**

**CITY OF LOS ANGELES
DEPARTMENT OF CITY PLANNING
ZONING INFORMATION FILE**

ZI NO. 2452

**TRANSIT PRIORITY AREAS (TPAs) / EXEMPTIONS TO AESTHETICS AND PARKING
WITHIN TPAs PURSUANT TO CEQA**

CITYWIDE

COMMENTS:

On September 2013, the Governor signed into law Senate Bill (SB) 743, which instituted changes to the California Environmental Quality Act (CEQA) when evaluating environmental impacts to projects located in areas served by transit. While the thrust of SB 743 addressed a major overhaul on how transportation impacts are evaluated under CEQA, it also limited the extent to which aesthetics and parking are defined as impacts under CEQA. Specifically, Section 21099 (d)(1) of the Public Resources Code (PRC) states that a project's aesthetic and parking impacts shall not be considered a significant impact on the environment if:

1. The project is a residential, mixed-use residential, or employment center project, and
2. The project is located on an infill site within a transit priority area.

Section 21099 (a) of the PRC defines the following terms:

(1) "Employment center project" (TPAs) means a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area.

(4) "Infill site" means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

(7) "Transit priority area" means an area within one-half mile of a major transit stop that is existing or planned. Section 21064.3 of the PRC defines a "major transit stop" as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. For purposes of Section 21099 of the PRC, a transit priority area also includes major transit stops in the City of Los Angeles (city) that are scheduled to be completed within the planning horizon of the Southern California Association of Governments (SCAG) Regional Transportation Plan / Sustainable Community Strategy (RTP/SCS).

While the Governor's Office of Planning and Research (OPR) is still in the process of drafting guidance to substantially revise transportation impact methodology for infill projects, the elimination of aesthetics and parking for infill projects went into effect January 2014. No further action is needed for the elimination of aesthetics and parking for infill projects, defined herein to take effect as part of the City's impact evaluations pursuant to CEQA.

INSTRUCTIONS:

Visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's CEQA Threshold Guide shall not be considered an impact for infill projects within TPAs (shown in the attached map) pursuant to CEQA. However, this law did not limit the ability of the City to regulate, or study aesthetic related impacts pursuant to other land use regulations found in the Los Angeles Municipal Code (LAMC), or the City's General Plan, including specific plans. For example, DCP staff would still need to address a project's shade and shadow impacts if it is expressly required in a specific plan, Community Design Overlays (CDOs), or Historic Preservation Overlay Zones (HPOZs). Also note that the limitation of aesthetic impacts pursuant to Section 21099 of the PRC does not include impacts to historic or cultural resources. Impacts to historic or cultural resources will need to be evaluated pursuant to CEQA regardless of project location.

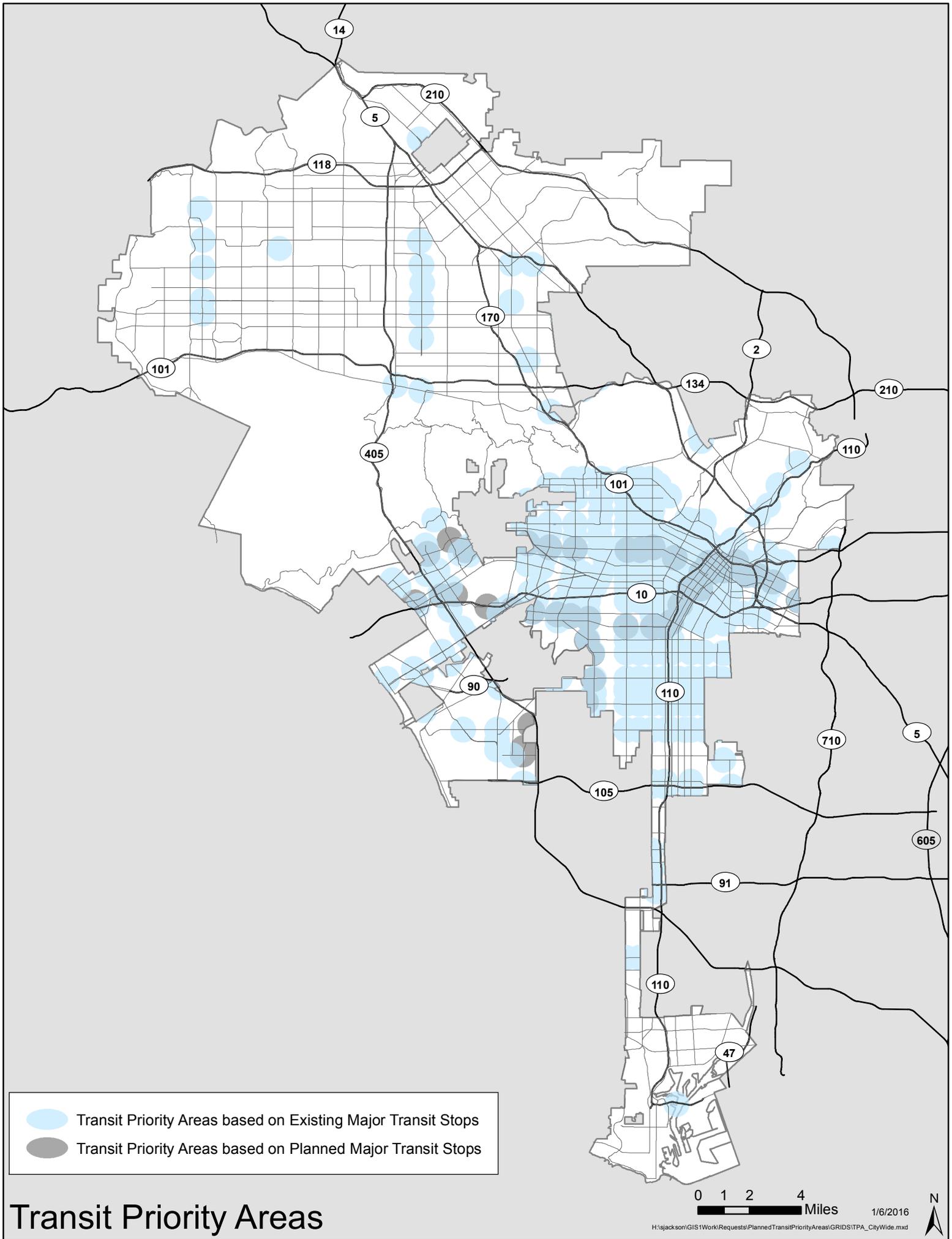
Find attached a citywide map of TPAs in the City of Los Angeles. Department of City Planning (DCP) staff should use this citywide map in determining if a project is clearly within a TPA, and if aesthetics and parking are not to be included in a project's impact evaluation in a negative declaration (ND), mitigated negative declaration (MND) or environmental impact report (EIR) prepared in accordance with CEQA. Eventually, TPAs will be identified in ZIMAS, however this map is to be referenced on an interim basis. Planners should also consult ZIMAS or Navigate LA if it cannot be determined from the map if a project site is within ½ mile of a major transit stop.

A project shall be considered to be within a TPA if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the stop or corridor. Projects intersecting non-overlapping TPA boundaries would also need to demonstrate they are within one-half mile of a major transit stop based on boarding location information. The burden shall be on the project applicant to demonstrate their project is within a TPA for parcels along a TPA boundary.

For further information regarding TPAs or SB 743, contact David Somers at (213) 978-3307

Further reference:

http://opr.ca.gov/s_transitorienteddevelopmentsb743.php



Transit Priority Areas

Appendix B: Supplementary Air Quality and Greenhouse Gas Emissions Information

**B-1. Ramboll Environ, Evaluation of the AB32 Scoping Plan
Business-as-Usual Threshold for the Palladium Residences
Project, Hollywood, California, February 3, 2016.**

Joshua Bledsoe
Latham & Watkins LLP
650 Towne Center Drive
Costa Mesa, CA 92626-1925

**EVALUATION OF THE AB32 SCOPING PLAN BUSINESS-AS-USUAL
THRESHOLD FOR THE PALLADIUM RESIDENCES PROJECT
HOLLYWOOD, CALIFORNIA**

Dear Mr. Bledsoe:

Date February 3, 2016

Ramboll Environ US Corporation (Ramboll Environ) is pleased to present this technical letter evaluating the Assembly Bill (AB) 32 Scoping Plan Business-As-Usual (BAU) thresholds for the Palladium Residences Project (Project). This technical letter contains: (1) a discussion of the evaluations of the AB 32 Scoping Plan analyses performed by the Bay Area Air Quality Management District (BAAQMD) and the San Luis Obispo Air Pollution Control District (SLOAPCD); (2) a discussion of the division of required emission reductions from the land use-driven sector between new and existing land uses; (3) a discussion of the emissions reduction fair share for the Southern California Association of Governments (SCAG) region; and (4) a substantiation of the BAU comparison threshold used in the Project's GHG analysis.

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BACKGROUND

We understand that in light of the California Supreme Court's Decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (No. S217763), CH Palladium, LLC desires a supplemental analysis to further support the Project's GHG analysis. The California Supreme Court discussed the value of providing "a quantitative equivalence between the Scoping Plan's statewide comparison and the EIR's own project-level comparison." The Court further stated that "on examination of the data behind the Scoping Plan's business-as-usual model, a lead agency might be able to determine what level of reduction from business as usual a new land use development at the proposed location must contribute in order to comply with statewide goals." It is our understanding that the Project has performed a "business-as-usual" analysis and that additional evidence is desired to further substantiate the threshold value chosen for the BAU model.

I. Relative Burden on Land Use-Driven Sector

Two local air districts have evaluated the relative burden on the land-use driven sector to reduce emissions from BAU: (a) the Bay Area Air Quality Management District (BAAQMD); and (b) the San Luis Obispo Air Pollution Control District (SLOACPD). We have reviewed those evaluations in detail and discuss them below.

A. Bay Area Air Quality Management District

The BAAQMD evaluated the reduction from a BAU scenario for land use-driven emission sectors in its “Proposed Thresholds of Significance” evaluation.¹ BAAQMD estimated the growth in statewide GHG emissions between 1990 and 2020 attributable to ‘land use-driven’ sectors. These sectors include Transportation (on-road passenger vehicles; on-road heavy-duty), electric power (electricity; cogeneration), commercial and residential (residential fuel use; commercial fuel use) and recycling and waste (domestic wastewater treatment). The result as shown in Table 2 of the BAAQMD document shows that a 26.2 percent reduction from statewide land-use driven GHG emissions would be necessary to meet the AB 32 goal of returning to the 1990 emission levels by 2020.² This is lower than the statewide reduction of 28.5 percent required under the Climate Change Scoping Plan (which was the document used to analyze the required land use reductions).

The BAAQMD document went even further; however, and made the implicit assertion that reductions from new construction and existing construction would be equal, and set their efficiency metric to reflect this by adopting an efficiency metric of 4.6 tonnes/service population per year. This metric was established by taking the allowable 1990 emissions for the land use sector of 295.5 million metric tonnes and dividing it by the service population projected in 2020 of 64.3 million people to result in an efficiency metric of 4.6 metric tonnes per service population per year regardless of whether the land use is new or existing. It made sense at the time that the BAAQMD would expect the reductions from existing and future land use to be approximately the same, because, as the BAAQMD document explains, the great majority (over 90%) of future and existing emissions from the land use sector are covered by rules and regulations that substantially reduce GHG emissions, including reducing the emissions from light-duty vehicles (Pavely I and II, Low Carbon Fuel Standard (LCFS)), reducing indirect emissions from electricity use in buildings (renewable portfolio standard (RPS) and energy efficiency standards), and reducing the emissions from heavy-duty vehicles (LCFS).

B. San Luis Obispo Air Pollution Control District

The SLOAPCD also evaluated the reduction from a BAU scenario for land use-driven emission sectors in its “Greenhouse Gas Thresholds and Supporting Evidence” evaluation.³ The SLOAPCD analysis was similar to BAAQMD; however, the evaluation was based on the California Air Resources Board (CARB) Functional Equivalent Document (FED) analysis, which accounted for the effects of the late 2000’s recession in terms of the estimated growth and the estimated BAU statewide emissions inventory. Based on these revised CARB emission estimates from the FED, SLOAPCD estimated in Table 1 of their analysis that the percent reduction goal from statewide land use-driven sectors is 10.12 percent based on the BAU assumptions consistent with the FED. This is lower than the statewide reduction used in the FED of 15.8 percent.

Similar to what was done in the BAAQMD; the San Luis Obispo efficiency metric also conservatively presumed that the reduction in emissions from existing and future land use will be the same.

¹ BAAQMD. 2010. California Environmental Quality Act Guidelines Update, Proposed Thresholds of Significance. May 3. Available at: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/proposed_thresholds_report_may_3_2010_final.pdf?la=en. Accessed: January 2016.

² *Ibid.*

³ SLOAPCD. 2012. Greenhouse Gas Thresholds and Supporting Evidence. March 28. Available at: <http://www.slocleanair.org/images/cms/upload/files/Greenhouse%20Gas%20Thresholds%20and%20Supporting%20Evidence%204-2-2012.pdf>. Accessed: January 2016.

II. Existing vs. New Land Use Fair Share

The Climate Change Scoping Plan estimates both existing emissions *and those due to growth* to estimate the BAU 2020 emissions to determine the level of reductions needed to achieve the 1990 limit. This approach captures the emission due to growth throughout the state and thus includes emissions from new individual projects. The Climate Change Scoping Plan does not clearly identify assumptions or assertions that new development must exceed the statewide target to offset emissions from existing land use development.

As established in the Climate Change Scoping Plan, new development is already very efficient due to Title 24 energy efficiency standards, the Green Buildings Standards Code, and the increasing locational-efficiency caused by Senate Bill (SB) 375. The California Homebuilding Foundation released a study on “cost effective greenhouse gas reductions in the residential sector” which estimated that there are 13,270,000 dwelling units in California and that new construction adds approximately 150,000 new units each year.⁴ Based on these estimates, it is clear that there is a tremendous opportunity to reduce GHG emissions by addressing energy efficiency in existing units.

The Legislature recently has made efforts to achieve the massive reduction opportunity afforded by existing buildings. The Clean Energy and Pollution Reduction Act of 2015, Senate Bill (SB) 350 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. Among other things, SB 350 will: (1) increase the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030 and; (2) most notably for existing land use, require the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers by January 1, 2030. In other words, SB 350 essentially requires the energy efficiency of existing buildings to be doubled by 2030.

The Climate Change Scoping Plan proposes a set of comprehensive actions designed to reduce greenhouse gas (GHG) emissions in California that covers both existing and new land use. The Climate Change Scoping Plan discusses the “Green Building Strategy,” which is based upon the Green Building Initiative (Executive Order S-20-04). The Green Building Initiative recognized that “significant reductions in greenhouse gas emissions can be achieved through the design and construction of new green buildings as well as the sustainable operation, retrofitting, and renovation of existing buildings.”⁵ The Climate Change Scoping Plan estimates a total anticipated reduction from the Green Building Strategy for both existing and new land use.

Importantly, CARB's approach to assessing the reductions needed from existing and new development did not change in the First Update to the Climate Change Scoping Plan (First Update). While CARB “noted the need for steep post-2020 reductions,” it did not find that additional reductions were needed from new development or that the commercial and residential sector was failing to meet projected targets. In fact,

⁴ ConSol. 2008. Meeting AB 32, Cost-Effective Greenhouse Gas Reductions in the Residential Sector. August. Available at: <http://www.consol.ws/index.php>. Accessed: January 2016.

⁵ CARB. 2008. Climate Change Scoping Plan. December. Page 57. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed: January 2016.

the First Update concludes that California is on the path to achieving 2020 goals, despite a growing population and the accompanying new development to accommodate that population.⁶

The California Homebuilding Foundation released a study on “cost effective greenhouse gas reductions in the residential sector” which demonstrated that retrofitting existing residential homes is likely much more cost-effective to reduce GHGs than further energy efficiency requirements to new housing.⁷ Notably, the study reported that “spending \$10,000 retrofitting a 1960’s home could save 8.5 tons of carbon, a cost of \$588 to \$1,176 per ton depending on tax credits and incentives. Increasing the energy efficiency of a new home 35% (from the 2005 Title 24 standards) would cost about \$5,000 and would reduce emissions by 1.1 tons at a cost of \$4,545 per ton.”

CARB acknowledges the complexity of land use-driven emissions given the cross over relationship to other sectors in the Climate Change Scoping Plan such as the transportation, electricity, water, and waste sectors: “While it is possible to illustrate the [GHG] inventory many different ways, no chart or graph can fully display how diverse economic sectors fit together. California’s economy is a web of activity where seemingly independent sectors and subsectors operate interdependently and often synergistically.”⁸ The potential GHG emissions and reductions in each of these sectors is complicated by the fact that the potential emissions from these sectors will be further influenced by reduction measures completely separate from land use. For example, improved fuel efficiency and decarbonization of fuel will impact the transportation sector, increases in renewable energy generation will impact the electricity sector, and changes in waste handling will impact the waste sector. These changes also are anticipated to impact emissions from both the existing and new land use sectors.

The Climate Change Scoping Plan contains estimates for anticipated GHG emission reductions such that the state will meet the 2020 goals, which includes the Cap-and-Trade Program. California’s Cap-and-Trade Program regulates the emissions of large electric power plants, large industrial plants, and fuel distributors (including transportation fuel and natural gas).⁹ These sources are responsible for about 85 percent of the State’s total GHG emissions inventory.¹⁰ The Cap-and-Trade Program currently covers GHG emissions from electricity generators and distributors of transportation fuels (i.e., gasoline and diesel)¹¹, natural gas, and other fossil fuels. Importantly, the Cap-and-Trade Program has been designed to provide a firm cap, ensuring that the 2020 statewide emission limit will *not* be exceeded. Thus, for the emission sources

⁶ CARB. 2014. First Update to the Climate Change Scoping Plan. May. ES-2 (“California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32”). Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed: January 2016.

⁷ ConSol. 2008. Meeting AB 32, Cost-Effective Greenhouse Gas Reductions in the Residential Sector. August. Available at: <http://www.consol.ws/index.php>. Accessed: January 2016.

⁸ CARB. 2008. Climate Change Scoping Plan. December. Page 14. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed: January 2016.

⁹ California Code Regulations, Title 17, § 95811. Available at: [https://govt.westlaw.com/calregs/Document/I1A3D4C109A3011E4A28EDDF568E2F8A2?viewType=FullText&originatio nContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/I1A3D4C109A3011E4A28EDDF568E2F8A2?viewType=FullText&originatio nContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)). Accessed: January 2016.

¹⁰ CARB. 2015. Available at: http://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf. Accessed: January 2016.

¹¹ CARB. 2012. Cap-and-Trade Regulation Instructional Guidance. Chapter 2. Table 2.1. Available at: <http://www.arb.ca.gov/cc/capandtrade/guidance/chapter2.pdf>. Accessed: January 2016.

covered by the Cap-and-Trade Program, which are nearly all of the sources associated with land use development projects, compliance with 2020 goals is assured by the Cap-and-Trade Program.

III. Regional Fair Share and SCAG Region Trajectory

While the Cap-and-Trade Program will cover the emissions associated with transportation, new land use nonetheless generally is burdened with the responsibility to aid in the reduction of vehicle miles traveled and/or traffic related emissions. SB 375 provides for a planning process to coordinate land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options.¹² The SCAG has developed and incorporated a “sustainable communities strategy” (SCS) into its regional transportation plan (RTP) to achieve these goals. The 2016 RTP/SCS integrates planning for “how we use the land with planning for how we get around,” which includes numerous strategies and goals that impact existing and new land use to help reduce traffic related GHG emissions.

In its Draft Program Environmental Impact Report (PEIR), SCAG evaluated the 2016 RTP/SCS in terms of meeting AB 32 GHG emission reduction goals and SB 375 emission targets, and determined if the trajectory of the SB 375 GHG emission reductions for the 2016 RTP/SCS would be consistent with the trajectory of the State’s long-term (i.e., 2030 and 2050) GHG emission reduction goals as set forth in Executive Order S-3-05, Executive Order B-16-2012, and Executive B-30-15, as well as the accelerated GHG emission reduction timeline of Executive Order B-30-15.

The Draft PEIR accounts for growth (i.e., new land uses) when evaluating consistency with the state’s long-term GHG emission reduction goals: “Between 2015 and 2040, the region is anticipated to experience substantial increases in population, households and jobs.... [T]he Plan focuses new growth and development in existing urbanized areas and opportunity areas such as the high quality transit corridors (HQTAs) and incorporates strategies to increase walking, biking, or other forms of active transportation.”¹³ The Draft PEIR projects that the 2016 RTP/SCS would decrease per capita emissions 8 percent by 2020, 18 percent by 2035, and 22% by 2040. These reductions would fulfill and exceed the Plan’s portion of SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.¹⁴

The Draft PEIR explains that the SCAG region will meet and exceed its fair share of GHG emission reductions, as established by CARB:

“By meeting the SB 375 targets, the Plan has contributed its share, if not greater, to meeting the AB 32 targets. The Plan has demonstrated that it met and exceeded CARB’s targets for greenhouse gas emissions from light-duty passenger vehicles for 2020 and 2035, respectively. Specifically, as shown in Figure 3.8.4-1, the Plan is showing a GHG emission reduction trajectory that would meet and exceed SB 375 between 2020 and 2040, and beyond. Given that the primary statutory responsibility of the 2016 RTP/SCS is to achieve SB 375 targets, which it does, and the goals set

¹² CARB. 2014. First Update to the Climate Change Scoping Plan. May. Available at: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed: January 2016.

¹³ SCAG. 2015. Program Environmental Impact Report for 2016 RTP/SCS. December. Available at: <http://scagrtpscs.net/Pages/DRAFT2016PEIR.aspx>. Accessed: January 2016. Page 3.8-35.

¹⁴ *Ibid.* at 3.8-38.

forth by AB 32 are intended to be achieved by all the responsible sectors, the Plan has successfully contributed its share, if not greater, to meeting the AB 32 target. Additionally, ‘California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32.’ [Citing First Update to the Climate Change Scoping Plan] The compact land use patterns of the Plan provide more efficient use of water and energy of building operations, among others. This efficiency leads to GHG emissions reduction beyond SB 375 and ensures the region to be on track with AB 32 goals. The assurance for meeting statewide AB 32 goals as outlined in the Plan as well as in the First Update to the Climate Change Scoping Plan provide a pathway towards meeting the State’s long-term GHG emissions reduction goals as set forth in Executive Orders.”¹⁵

The Draft PEIR elaborates on the 2016 RTP/SCS’s consistency with the state’s long-term goals:

“The 2016 RTP/SCS is currently required to meet the GHG reduction targets set by CARB, i.e., 8% reduction by 2020 and 13% by 2035, both on per capita basis relative to 2005 levels. The GHG reduction trajectory of the 2016 RTP/SCS is consistent with and is more aggressive than the ARB GHG Reduction Target Trajectory for the SCAG region, as the Plan’s trajectory shows aggressive GHG reductions between 2020 and 2040 (Figure 3.8.4-1). It should be noted that CARB has not established a 2030 target or a 2050 target for the transportation sector to meet the targets set by EO B-30-15, EO B-16-2012, and EO S-3-05. However, the new statewide interim 2030 target set forth under EO B-30-15 suggests that an accelerated timeline would be necessary. In order to address this new interim 2030 target, the 2016 RTP/SCS accelerates the reduction of GHG emissions such that by 2030, the Plan is expected to achieve a 14.7% reduction. This reduction would exceed SCAG’s current target of 13% by 2035.

In addition, by 2040, the horizon year of the 2016 RTP/SCS, the Plan is expected to achieve a 22% reduction in the GHG emissions of cars and light trucks. As shown on Figure 3.8.4-1, the 2016 RTP/SCS has met and exceeded the CARB’s targets for 2020 and 2035, respectively. The GHG reduction trajectory of the 2016 RTP/SCS is much more aggressive than CARB’s targets between 2020 and 2035. Additionally, the GHG reduction trajectory of the 2016 RTP/SCS beyond 2030 is consistent, if not more aggressive, with the accelerated pace established in the recent Executive Order B-30-15. Further, it should be noted that the goals set forth by AB 32 and the Executive Orders are intended to be achieved by all the responsible sectors. Yet, the 2016 RTP/SCS is demonstrated to contribute the Plan’s share, if not more, comparing to the accelerated pace.”¹⁶

In sum, the 2016 RTP/SCS would ensure the SCAG region is doing more than its fair share to meeting the short-term (2020) and long-term (2030 and 2050) AB 32 GHG emission reduction targets.

We understand that the Project would be consistent with both SCAG’s 2012 RTP/SCS and the 2016 RTP/SCS and, therefore, would be expected to facilitate the SCAG region’s compliance with the state’s short-term and long-term GHG emission reduction targets.

¹⁵ *Ibid.* at 3.8-39.

¹⁶ *Ibid.* at 3.8-40 to 3.8-41.

IV. Palladium Residences Project

The BAAQMD and SLOAPCD analyses can be used to represent what the reduction from a BAU scenario for the land use-driven sector would be. The extensive analysis from both agencies and the creation of the efficiency metric confirmed their position that reductions from existing and future land uses would be the same to meet AB 32 goals. This makes sense given the steep reductions that are available from existing land uses by implementing retrofit programs as discussed above. In addition, the SCAG RTP/SCS demonstrates that the region is doing its fair share as it relates to land use related emissions. Both the BAAQMD and the SLOAPCD concluded that the reductions required from the land use-driven sector are lower than the statewide reduction required under AB 32. In particular, the BAAQMD concluded the required reduction from the land-use driven sector is 26.2 percent (compared to 28.5 percent statewide under the Climate Change Scoping Plan) and the SLOAPCD concluded the required reduction from the land-use driven sector is 10.12 percent (compared to 15.8 percent statewide under the FED).

Based on the information available from the AB 32 Scoping Plan, an understanding of the State’s Emission Reduction Measures such as the Cap-and-Trade Program, the relative burdens imposed on new versus existing land uses, SCAG’s plans for regional land use and transportation planning and the SCAG region’s projected achievement of its relative GHG emission reduction burden, and given that both the BAAQMD and SLOAPCD assert that emissions reductions from the land use sector will be equally distributed between new and existing land uses, the BAU reductions derived by the BAAQMD and the SLOAPCD for the land use-driven sector are plausible estimates of a fair share reduction from a BAU scenario for new land use projects. Therefore, the Project’s utilization of the statewide reduction from BAU as a CEQA threshold of significance represents a conservative and logical approach to analyzing the Project’s GHG emissions.

Very truly yours,



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Enclosures:

- BAAQMD, 2010. California Environmental Quality Act Guidelines Update, Proposed Thresholds of Significance. May 3. Pages 11-25.
- SLOAPCD, 2012. Greenhouse Gas Thresholds and Supporting Evidence. March 28. Pages 9-26.
- SCAG, Program Environmental Impact Report for 2016 RTP/SCS. December 2015. Section 3.8.

**ENCLOSURE 1
BAAQMD. 2010.
CALIFORNIA ENVIRONMENTAL QUALITY ACT
GUIDELINES UPDATE
PROPOSED THRESHOLDS OF SIGNIFICANCE**

Senate Bill 375

Senate Bill (SB) 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO's Regional Transportation Plan (RTP). ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years, but can be updated every four years if advancements in emission technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects would not be eligible for State funding programmed after January 1, 2012. New provisions of CEQA incentivize qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The revised District CEQA Guidelines includes methodology consistent with the recently updated State CEQA Guidelines, which provides that certain residential and mixed use projects, and transit priority projects consistent with an applicable SCS or APS need not analyze GHG impacts from cars and light duty trucks (CEQA Guidelines §15183.5(c)).

2.3.2 PROJECT-LEVEL GHG THRESHOLDS

Staff recommends setting GHG significance thresholds based on AB 32 GHG emission reduction goals while taking into consideration emission reduction strategies outlined in ARB's Scoping Plan. Staff proposes two quantitative thresholds for land use projects: a bright line threshold based on a "gap" analysis and an efficiency threshold based on emission levels required to be met in order to achieve AB 32 goals.

Staff also proposes one qualitative threshold for land use projects: if a project complies with a Qualified Greenhouse Gas Reduction Strategy (as defined in Section 2.3.4 below) that addresses the project it would be considered less than significant. As explained in detail in Section 2.3.4 below, compliance with a Qualified Greenhouse Gas Reduction Strategy (or similar adopted policies, ordinances and programs), would provide the evidentiary basis for making CEQA findings that development consistent with the plan would result in feasible, measureable, and verifiable GHG reductions consistent with broad state goals such that projects approved under qualified Greenhouse Gas Reduction Strategies or equivalent demonstrations would achieve their fair share of GHG emission reductions.

2.3.2.1 LAND USE PROJECTS "GAP-BASED" THRESHOLD

Staff took eight steps in developing this threshold approach, which are summarized here and detailed in the sections that follow. It should be noted that the "gap-based approach" used for threshold development is a conservative approach that focuses on a limited set of state mandates that appear to have the greatest potential to reduce land use development-

related GHG emissions at the time of this writing. It is also important to note that over time, as the effectiveness of the State's implementation of AB 32 (and SB 375) progresses, BAAQMD will need to reconsider the extent of GHG reductions needed over and above those from the implementation thereof for the discretionary approval of land use development projects. Although there is an inherent amount of uncertainty in the estimated capture rates (i.e., frequency at which project-generated emissions would exceed a threshold and would be subject to mitigation under CEQA) and the aggregate emission reductions used in the gap analysis, they are based on BAAQMD's expertise, the best available data, and use conservative assumptions for the amount of emission reductions from legislation in derivation of the gap (e.g., only adopted legislation was relied upon). This approach is intended to attribute an appropriate share of GHG emission reductions necessary to reach AB 32 goals to new land use development projects in BAAQMD's jurisdiction that are evaluated pursuant to CEQA.

Step 1 Estimate from ARB's statewide GHG emissions inventory the growth in emissions between 1990 and 2020 attributable to "land use-driven" sectors of the emission inventory as defined by OPR's guidance document (*CEQA and Climate Change*). Land use-driven emission sectors include Transportation (On-Road Passenger Vehicles; On-Road Heavy Duty), Electric Power (Electricity; Cogeneration), Commercial and Residential (Residential Fuel Use; Commercial Fuel Use) and Recycling and Waste (Domestic Waste Water Treatment).

Result: 1990 GHG emissions were 295.53 MMT CO₂e/yr and projected 2020 business-as-usual GHG emissions would be 400.22 MMT CO₂e/yr; thus a 26.2 percent reduction from statewide land use-driven GHG emissions would be necessary to meet the AB 32 goal of returning to 1990 emission levels by 2020. (See Table 2)

Step 2 Estimate the anticipated GHG emission reductions affecting the same land use-driven emissions inventory sectors associated with adopted statewide regulations identified in the AB 32 Scoping Plan.

Result: Estimated a 23.9 percent reduction can be expected in the land use-driven GHG emissions inventory from adopted Scoping Plan regulations, including AB 1493 (Pavley), LCFS, Heavy/Medium Duty Efficiency, Passenger Vehicle Efficiency, Energy-Efficiency Measures, Renewable Portfolio Standard, and Solar Roofs. (See Table 3)

Step 3 Determine any short fall or "gap" between the 2020 statewide emission inventory estimates and the anticipated emission reductions from adopted Scoping Plan regulations. This "gap" represents additional GHG emission reductions needed statewide from the land use-driven emissions inventory sectors, which represents new land use development's share of the emission reductions needed to meet statewide GHG emission reduction goals.

Result: With the 23.9 percent reductions from AB 32 Scoping Measures, there is a “gap” of 2.3 percent in necessary additional GHG emissions reductions to meet AB 32 goals of a 26.2 percent reduction from statewide land use-driven GHG emissions to return to 1990 levels in 2020. (See Table 2)

Step 4 Determine the percent reduction this “gap” represents in the “land use-driven” emissions inventory sectors from BAAQMD’s 2020 GHG emissions inventory. Identify the mass of emission reductions needed in the SFBAAB from land use-driven emissions inventory sectors.

Result: Estimated that a 2.3 percent reduction in BAAQMD’s projected 2020 emissions projections requires emissions reductions of 1.6 MMT CO₂e/yr from the land use-driven sectors. (See Table 4)

Step 5 Assess BAAQMD’s historical CEQA database (2001-2008) to determine the frequency distribution trend of project sizes and types that have been subject to CEQA over the past several years.

Result: Determined historical patterns of residential, commercial and industrial development by ranges of average sizes of each development type. Results were used in Step 6 below to distribute anticipated Bay Area growth among different future project types and sizes.

Step 6 Forecast new land use development for the Bay Area using DOF/EDD population and employment projections and distribute the anticipated growth into appropriate land use types and sizes needed to accommodate the anticipated growth (based on the trend analysis in Step 5 above). Translate the land use development projections into land use categories consistent with those contained in the Urban Emissions Model (URBEMIS).

Result: Based on population and employment projections and the trend analysis from Step 5 above, forecasted approximately 4,000 new development projects, averaging about 400 projects per year through 2020 in the Bay Area.

Step 7 Estimate the amount of GHG emissions from each land use development project type and size using URBEMIS and post-model manual calculation methods (for emissions not included in URBEMIS). Determine the amount of GHG emissions that can reasonably and feasibly be reduced through currently available mitigation measures (“mitigation effectiveness”) for future land use development projects subject to CEQA (based on land use development projections and frequency distribution from Step 6 above).

Result: Based on the information available and on sample URBEMIS calculations, found that mitigation effectiveness of between 25 and 30 percent is feasible.

Step 8 Conduct a sensitivity analysis of the numeric GHG mass emissions threshold needed to achieve the desired emissions reduction (i.e., “gap”) determined in Step 4. This mass emission GHG threshold is that which would be needed to achieve the emission reductions necessary by 2020 to meet the Bay Area’s share of the statewide “gap” needed from the land use-driven emissions inventory sectors.

Result: The results of the sensitivity analysis conducted in Step 8 found that reductions between about 125,000 MT/yr (an aggregate of 1.3 MMT in 2020) and over 200,000 MT/yr (an aggregate of over 2.0 MMT in 2020) were achievable and feasible. A mass emissions threshold of 1,100 MT of CO₂e/yr would result in approximately 59 percent of all projects being above the significance threshold (e.g., this is approximately the operational GHG emissions that would be associated with a 60 residential unit subdivision) and must implement feasible mitigation measures to meet CEQA requirements. With an estimated 26 percent mitigation effectiveness, the 1,100 MT threshold would achieve 1.6 MMT CO₂e/yr in GHG emissions reductions.

2.3.2.2 DETAILED BASIS AND ANALYSIS

Derivation of Greenhouse Gas Reduction Goal

To meet the target emissions limit established in AB 32 (equivalent to levels in 1990), total GHG emissions would need to be reduced by approximately 28 percent from projected 2020 forecasts (ARB 2009a). The AB 32 Scoping Plan is ARB’s plan for meeting this mandate (ARB 2008). While the Scoping Plan does not specifically identify GHG emission reductions from the CEQA process for meeting AB 32 derived emission limits, the scoping plan acknowledges that “other strategies to mitigate climate change . . . should also be explored.” The Scoping Plan also acknowledges that “Some of the measures in the plan may deliver more emission reductions than we expect; others less . . . and new ideas and strategies will emerge.” In addition, climate change is considered a significant environmental issue and, therefore, warrants consideration under CEQA. SB 97 represents the State Legislature’s confirmation of this fact, and it directed the Governor’s Office of Planning and Research (OPR) to develop CEQA Guidelines for evaluation of GHG emissions impacts and recommend mitigation strategies. In response, OPR released the *Technical Advisory: CEQA and Climate Change* (OPR 2008), and proposed revisions to the State CEQA guidelines (April 14, 2009) for consideration of GHG emissions. The California Natural Resources Agency adopted the proposed State CEQA Guidelines revisions on December 30, 2009 and the revisions were effective beginning March 18, 2010. It is known that new land use development must also do its fair share toward achieving AB 32 goals (or, at a minimum, should not hinder the State’s progress toward the mandated emission reductions).

Foreseeable Scoping Plan Measures Emission Reductions and Remaining “Gap”

Step 1 of the Gap Analysis entailed estimating from ARB’s statewide GHG inventory the growth in emissions between 1990 and 2020 attributable to land use driven sectors of the emissions inventory. As stated above, to meet the requirements set forth in AB 32 (i.e., achieve California’s 1990-equivalent GHG emissions levels by 2020) California would need to achieve an approximate 28 percent reduction in emissions across all sectors of the GHG emissions inventory compared with 2020 projections. However, to meet the AB 32 reduction goals in the emissions sectors that are related to land use development (e.g., on-road passenger and heavy-duty motor vehicles, commercial and residential area sources [i.e., natural gas], electricity generation/consumption, wastewater treatment, and water distribution/consumption), staff determined that California would need to achieve an approximate 26 percent reduction in GHG emissions from these land use-driven sectors (ARB 2009a) by 2020 to return to 1990 land use emission levels.

Next, in Step 2 of the Gap Analysis, Staff determined the GHG emission reductions within the land use-driven sectors that are anticipated to occur from implementation of the Scoping Plan measures statewide, which are summarized in Table 2 and described below. Since the GHG emission reductions anticipated with the Scoping Plan were not accounted for in ARB’s or BAAQMD’s 2020 GHG emissions inventory forecasts (i.e., business as usual), an adjustment was made to include (i.e., give credit for) GHG emission reductions associated with key Scoping Plans measures, such as the Renewable Portfolio Standard, improvements in energy efficiency through periodic updates to Title 24, AB 1493 (Pavley) (which recently received a federal waiver to allow it to be enacted in law), the Low Carbon Fuel Standard (LCFS), and other measures. With reductions from these State regulations (Scoping Plan measures) taken into consideration and accounting for an estimated 23.9 percent reduction in GHG emissions, in Step 3 of the Gap Analysis Staff determined that the Bay Area would still need to achieve an additional 2.3 percent reduction from projected 2020 GHG emissions to meet the 1990 GHG emissions goal from the land-use driven sectors. This necessary 2.3 percent reduction in projected GHG emissions from the land use sector is the “gap” the Bay Area needs to fill to do its share to meet the AB 32 goals. Refer to the following explanation and Tables 2 through 4 for data used in this analysis.

Because the transportation sector is the largest emissions sector of the state’s GHG emissions inventory, it is aggressively targeted in early actions and other priority actions in the Scoping Plan including measures concerning gas mileage (Pavley), fuel carbon intensity (LCFS) and vehicle efficiency measures.

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Table 2 – California 1990, 2002-2004, and 2020 Land Use Sector GHG¹ (MMT CO ₂ e/yr)				
Sector	1990 Emissions	2002-2004 Average	2020 BAU Emissions Projections	% of 2020 Total
Transportation	137.98	168.66	209.06	52%
On-Road Passenger Vehicles	108.95	133.95	160.78	40%
On-Road Heavy Duty	29.03	34.69	48.28	12%
Electric Power	110.63	110.04	140.24	35%
Electricity	95.39	88.97	107.40	27%
Cogeneration ²	15.24	21.07	32.84	8%
Commercial and Residential	44.09	40.96	46.79	12%
Residential Fuel Use	29.66	28.52	32.10	8%
Commercial Fuel Use	14.43	12.45	14.63	4%
Recycling and Waste¹	2.83	3.39	4.19	1%
Domestic Wastewater Treatment	2.83	3.39	4.19	1%
TOTAL GROSS EMISSIONS	295.53	323.05	400.22	
% Reduction Goal from Statewide land use driven sectors (from 2020 levels to reach 1990 levels in these emission inventory sectors)			26.2%	
% Reduction from AB32 Scoping Plan measures applied to land use sectors (see Table 3)			-23.9%	
% Reduction needed statewide beyond Scoping Plan measures (Gap)			2.3%	
Notes: MMT CO ₂ e /yr = million metric tons of carbon dioxide equivalent emissions per year.				
¹ Landfills not included. See text.				
² Cogeneration included due to many different applications for electricity, in some cases provides substantial power for grid use, and because electricity use served by cogeneration is often amenable to efficiency requirements of local land use authorities.				
Sources: Data compiled by EDAW and ICF Jones & Stokes from ARB data.				

Pavley Regulations. The AB 32 Scoping Plan assigns an approximate 20 percent reduction in emissions from passenger vehicles associated with the implementation of AB 1493. The AB 32 Scoping Plan also notes that “AB 32 specifically states that if the Pavley regulations do not remain in effect, ARB shall implement alternative regulations to control mobile sources to achieve equivalent or greater reductions of greenhouse gas emissions (HSC §38590).” Thus, it is reasonable to assume full implementation of AB 1493 standards, or equivalent programs that would be implemented by ARB. Furthermore, on April 1, 2010, U.S. EPA and the Department of Transportation’s National Highway Safety Administration (NHTSA) announced a joint final rule establishing a national program that will dramatically reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States after 2011. Under this national program, automobile manufacturers will be able to build a single light-duty national fleet that satisfies all requirements under both the national program and the standards of California and other states. Nonetheless, BAAQMD may need to revisit this methodology as the federal standards come on line to ensure that vehicle standards are as aggressive as contemplated in development of this threshold.

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Table 3 – 2020 Land Use Sector GHG Emission Reductions from State Regulations and AB 32 Measures				
Affected Emissions Source	California Legislation	% Reduction from 2020 GHG inventory	End Use Sector (% of Bay Area LU Inventory)	Scaled % Emissions Reduction (credit)
Mobile	AB 1493 (Pavley)	19.7%	On road passenger/light truck transportation (45%)	8.9%
	LCFS	7.2%	On road passenger/light truck transportation (45%)	3.2%
	LCFS	7.2%	On road Heavy/Medium Duty Transportation (5%)	0.4%
	Heavy/Medium Duty Efficiency	2.9%	On road Heavy/Medium Duty Transportation (5%)	0.2%
	Passenger Vehicle Efficiency	2.8%	On road passenger/light truck transportation (45%)	1.3%
Area	Energy-Efficiency Measures	9.5%	Natural gas (Residential, 10%)	1.0%
			Natural gas (Non-residential, 13%)	1.2%
Indirect	Renewable Portfolio Standard	21.0%	Electricity (excluding cogen) (17%)	3.5%
	Energy-Efficiency Measures	15.7%	Electricity (26%)	4.0%
	Solar Roofs	1.5%	Electricity (excluding cogen) (17%)	0.2%
Total credits given to land use-driven emission inventory sectors from Scoping Plan measures				23.9%
Notes: AB = Assembly Bill; LCFS = Low Carbon Fuel Standard; SB = Senate Bill; RPS = Renewable Portfolio Standard Please refer to Appendix D for detailed calculations. Sources: Data compiled by ICF Jones & Stokes.				

LCFS. According to the adopted LCFS rule (CARB, April 2009), the LCFS is expected to result in approximately 10 percent reduction in the carbon intensity of transportation fuels. However, a portion of the emission reductions required from the LCFS would be achieved over the life cycle of transportation fuel production rather than from mobile-source emission factors. Based on CARB’s estimate of nearly 16 MMT reductions in on-road emissions from implementation of the LCFS and comparison to the statewide on-road emissions sector, the LCFS is assumed to result in a 7.2 percent reduction compared to 2020 BAU conditions (CARB 2009e).

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Table 4 – SFBAAB 1990, 2007, and 2020 Land Use Sector GHG Emissions Inventories and Projections (MMT CO₂e/yr)				
Sector	1990 Emissions	2007 Emissions	2020 Emissions Projections	% of 2020 Total ²
Transportation	26.1	30.8	35.7	50%
On-Road Passenger Vehicles	23.0	27.5	32.0	
On-Road Heavy Duty	3.1	3.3	3.7	
Electric Power	25.1	15.2	18.2	26%
Electricity	16.5	9.9	11.8	
Cogeneration	8.6	5.3	6.4	
Commercial and Residential	8.9	15.0	16.8	24%
Residential Fuel Use	5.8	7.0	7.5	
Commercial Fuel Use	3.1	8.0	9.3	
Recycling and Waste¹	0.2	0.4	0.4	1%
Domestic Waste Water Treatment	0.2	0.4	0.4	
TOTAL GROSS EMISSIONS	60.3	61.4	71.1	
SFBAAB's "Fair Share" % Reduction (from 2020 levels to reach 1990 levels) with AB-32 Reductions (from Table 3)			2.3%	
SFBAAB's Equivalent Mass Emissions Land Use Reduction Target at 2020 (MMT CO ₂ e/yr)			1.6	
Notes: MMT CO ₂ e /yr = million metric tons of carbon dioxide equivalent emissions per year; SFBAAB = San Francisco Bay Area Air Basin.				
¹ Landfills not included.				
² Percentages do not sum exactly to 100% in table due to rounding.				
Please refer to Appendix D for detailed calculations.				
Sources: Data compiled by EDAW 2009, ICF Jones & Stokes 2009, BAAQMD 2008.				

Renewable Portfolio Standard, Energy Efficiency and Solar Roofs. Energy efficiency and renewable energy measures from the Scoping Plan were also included in the gap analysis. The Renewable Portfolio Standard (rules) will require the renewable energy portion of the retail electricity portfolio to be 33 percent in 2020. For PG&E, the dominant electricity provider in the Basin, approximately 12 percent of their current portfolio qualifies under the RPS rules and thus the gain by 2020 would be approximately 21 percent. The Scoping Plan also estimates that energy efficiency gains with periodic improvement in building and appliance energy standards and incentives will reach 10 to 15 percent for natural gas and electricity respectively. The final state measure included in this gap analysis is the solar roof initiative, which is estimated to result in reduction of the overall electricity inventory of 1.5 percent.

Landfill emissions are excluded from this analysis. While land use development does generate waste related to both construction and operations, the California Integrated Waste Management Board (CIWMB) has mandatory diversion requirements that will, in all probability, increase over time to promote waste reductions, reuse, and recycle. The Bay Area has relatively high levels of waste diversion and extensive recycling efforts. Further, ARB has established and proposes to increase methane capture requirements for all major landfills. Thus, at this time, landfill emissions associated with land use

development waste generation is not included in the land use sector inventory used to develop this threshold approach.

Industrial stationary sources thresholds were developed separately from the land use threshold development using a market capture approach as described below. However, mobile source and area source emissions, as well as indirect electricity emissions that derive from industrial use are included in the land use inventory above as these particular activities fall within the influence of local land use authorities in terms of the affect on trip generation and energy efficiency.

AB 32 mandates reduction to 1990-equivalent GHG levels by 2020, with foreseeable emission reductions from State regulations and key Scoping Plan measures taken into account, were applied to the land use-driven emission sectors within the SFBAAB (i.e., those that are included in the quantification of emissions from a land use project pursuant to a CEQA analysis [on-road passenger vehicles, commercial and residential natural gas, commercial and residential electricity consumption, and domestic waste water treatment], as directed by OPR in the Technical Advisory: *Climate Change and CEQA* [OPR 2008]). This translates to a 2.3 percent gap in necessary GHG emission reductions by 2020 from these sectors.

2.3.2.3 LAND USE PROJECTS BRIGHT LINE THRESHOLD

In Steps 4 and 5 of the gap analysis, Staff determined that applying a 2.3 percent reduction to these land use emissions sectors in the SFBAAB's GHG emissions inventory would result in an equivalent fair share of 1.6 million metric tons per year (MMT/yr) reductions in GHG emissions from new land use development. As additional regulations and legislation aimed at reducing GHG emissions from land use-related sectors become available in the future, the 1.6 MMT GHG emissions reduction goal may be revisited and recalculated by BAAQMD.

In order to derive the 1.6 MMT "gap," a projected development inventory for the next ten years in the SFBAAB was calculated. (See Table 4 and *Revised Draft Options and Justifications Report* (BAAQMD 2009).) CO₂e emissions were modeled for projected development in the SFBAAB and compiled to estimate the associated GHG emissions inventory. The GHG (i.e., CO₂e) CEQA threshold level was adjusted for projected land use development that would occur within BAAQMD's jurisdiction over the period from 2010 through 2020.

Projects with emissions greater than the threshold would be required to mitigate to the threshold level or reduce project emissions by a percentage (mitigation effectiveness) deemed feasible by the Lead Agency under CEQA compared to a base year condition. The base year condition is defined by an equivalent size and character of project with annual emissions using the defaults in URBEMIS and the California Climate Action Registry's General Reporting Protocol for 2008. By this method, land use project mitigation subject to CEQA would help close the "gap" remaining after application of the key regulations and measures noted above supporting overall AB 32 goals.

This threshold takes into account Steps 1-8 of the gap analysis described above to arrive at a numerical mass emissions threshold. Various mass emissions significance threshold levels (i.e., bright lines) could be chosen based on the mitigation effectiveness and performance anticipated to be achieved per project to meet the aggregate emission reductions of 1.6 MMT needed in the SFBAAB by 2020. (See Table 5 and *Revised Draft Options and Justifications Report* (BAAQMD 2009).) Staff recommends a 1,100 MT CO₂e per year threshold. Choosing a 1,100 MT mass emissions significance threshold level (equivalent to approximately 60 single-family units), would result in about 59 percent of all projects being above the significance threshold and having to implement feasible mitigation measures to meet their CEQA obligations. These projects account for approximately 92 percent of all GHG emissions anticipated to occur between now and 2020 from new land use development in the SFBAAB.

Project applicants and lead agencies could use readily available computer models to estimate a project's GHG emissions, based on project specific attributes, to determine if they are above or below the bright line numeric threshold. With this threshold, projects that are above the threshold level, after consideration of emission-reducing characteristics of the project as proposed, would have to reduce their emissions to below the threshold to be considered less than significant.

Establishing a "bright line" to determine the significance of a project's GHG emissions impact provides a level of certainty to lead agencies in determining if a project needs to reduce its GHG emissions through mitigation measures and when an EIR is required.

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Table 5 – Operational GHG Threshold Sensitivity Analysis								
Option	Mitigation Effectiveness Assumptions		Mass Emission Threshold Level (MT CO₂e/yr)	% of Projects Captured (>threshold)	% of Emissions Captured (> threshold)	Emissions Reduction per year (MT/yr)	Aggregate Emissions Reduction (MMT) at 2020	Threshold Project Size Equivalent (single family dwelling units)
	Performance Standards Applied to All Projects with Emissions < Threshold Level	Mitigation Effectiveness Applied to Emissions > Threshold Level						
1A	N/A	30%	975	60%	93%	201,664	2.0	53
1A	N/A	25%	110	96%	100%	200,108	2.0	66
1A	N/A	30%	1,225	21%	67%	159,276	1.6	67
1A	N/A	26%	1,100	59%	92%	159,877	1.6	60
1A	N/A	30%	2,000	14%	61%	143,418	1.4	109
1A	N/A	25%	1,200	58%	92%	136,907	1.4	66
1A	N/A	30%	3,000	10%	56%	127,427	1.3	164
1A	N/A	25%	1,500	20%	67%	127,303	1.3	82
1B	26%	N/A	N/A	100%	100%	208,594	2.1	N/A ¹
1C	5%	30%	1,900	15%	62%	160,073	1.6	104
1C	10%	25%	1,250	21%	67%	159,555	1.6	68
1C	5%	30%	3,000	10%	56%	145,261	1.5	164
1C	10%	25%	2,000	4%	61%	151,410	1.5	109
1C	10%	30%	10,000	2%	33%	125,271	1.3	547

Notes: MMT = million metric tons per year; MT CO₂e/yr = metric tons of carbon dioxide equivalent emissions per year; MT/yr = metric tons per year; N/A = not applicable.
¹ Any project subject to CEQA would trigger this threshold.
Please refer to Appendix E for detailed calculations.
Source: Data modeled by ICF Jones & Stokes.

2.3.2.4 LAND USE PROJECTS EFFICIENCY-BASED THRESHOLD

GHG efficiency metrics can also be utilized as thresholds to assess the GHG efficiency of a project on a per capita basis (residential only projects) or on a “service population” basis (the sum of the number of jobs and the number of residents provided by a project) such that the project will allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal (allowable emissions), by the estimated 2020 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32. Staff believes it is more appropriate to base the land use efficiency threshold on the service population metric for the land use-driven emission inventory. This approach is appropriate because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use) and uses only the land use emissions inventory that is comprised of all land use projects. Staff will provide the methodology to calculate a project’s GHG emissions in the revised CEQA Guidelines, such as allowing infill projects up to a 50 percent or more reduction in daily vehicle trips if the reduction can be supported by close proximity to transit and support services, or a traffic study prepared for the project.

Table 6 – California 2020 GHG Emissions, Population Projections and GHG Efficiency Thresholds - Land Use Inventory Sectors	
Land Use Sectors Greenhouse Gas Emissions Target	295,530,000
Population	44,135,923
Employment	20,194,661
California Service Population (Population + Employment)	64,330,584
AB 32 Goal GHG emissions (metric tons CO ₂ e)/SP ¹	4.6
Notes: AB = Assembly Bill; CO ₂ e = carbon dioxide equivalent; GHG = greenhouse gas; SP = service population.	
¹ Greenhouse gas efficiency levels were calculated using only the “land use-related” sectors of ARB’s emissions inventory.	
Please refer to Appendix D for detailed calculations.	
Sources: Data compiled by EDAW 2009, ARB 2009a, DOF 2009, EDD 2009, ICF Jones & Stokes 2009.	

Staff proposes a project-level efficiency threshold of 4.6 MT CO₂e/SP, the derivation of which is shown Table 6. This efficiency-based threshold reflects very GHG-efficient projects. As stated previously and below, staff anticipates that significance thresholds (rebuttable presumptions of significance at the project level) will function on an interim basis only until adequate programmatic approaches are in place at the city, county, and regional level that will allow the CEQA streamlining of individual projects. (See State CEQA Guidelines §15183.5 [“Tiering and Streamlining the Analysis of Greenhouse Gas Emissions”]).

2.3.3 PLAN-LEVEL GHG THRESHOLDS

Staff proposes using a two step process for determining the significance of proposed plans and plan amendments for GHG. As a first step in assessing plan-level impacts, Staff

is proposing that agencies that have adopted a qualified Greenhouse Gas Reduction Strategy (or have incorporated similar criteria in their general plan) and the general plan is consistent with the Greenhouse Gas Reduction Strategy, the general plan would be considered less than significant. In addition, as discussed above for project-level GHG impacts, Staff is proposing an efficiency threshold to assess plan-level impacts. Staff believes a programmatic approach to limiting GHG emissions is appropriate at the plan-level. Thus, as projects consistent with the Greenhouse Gas Reduction Strategy are proposed, they may be able to tier off the plan and its environmental analysis.

2.3.3.1 GHG EFFICIENCY METRICS FOR PLANS

For local land use plans, a GHG-efficiency metric (e.g., GHG emissions per unit) would enable comparison of a proposed general plan to its alternatives and to determine if the proposed general plan meets AB 32 emission reduction goals.

AB 32 identifies local governments as essential partners in achieving California's goal to reduce GHG emissions. Local governments have primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth and the changing needs of their jurisdiction. ARB has developed the Local Government Operations Protocol and is developing a protocol to estimate community-wide GHG emissions. ARB encourages local governments to use these protocols to track progress in reducing GHG emissions. ARB encourages local governments to institutionalize the community's strategy for reducing its carbon footprint in its general plan. SB 375 creates a process for regional integration of land development patterns and transportation infrastructure planning with the primary goal of reducing GHG emissions from the largest sector of the GHG emission inventory, light duty vehicles.

If the statewide AB 32 GHG emissions reduction context is established, GHG efficiency can be viewed independently from the jurisdiction in which the plan is located. Expressing projected 2020 mass of emissions from land use-related emissions sectors by comparison to a demographic unit (e.g., population and employment) provides evaluation of the GHG efficiency of a project in terms of what emissions are allowable while meeting AB 32 targets.

Two approaches were considered for efficiency metrics. The "service population" (SP) approach would consider efficiency in terms of the GHG emissions compared to the sum of the number of jobs and the number of residents at a point in time. The per capita option would consider efficiency in terms of GHG emissions per resident only. Staff recommends that the efficiency threshold for plans be based on all emission inventory sectors because, unlike land use projects, general plans comprise more than just land use related emissions (e.g. industrial). Further, Staff recommends that the plan threshold be based on the service population metric as general plans include a mix of residents and employees. The Service Population metric would allow decision makers to compare GHG efficiency of general plan alternatives that vary residential and non-residential development totals, encouraging GHG efficiency through improving jobs/housing balance. This approach would not give preference to communities that accommodate more residential (population-driven) land

uses than non-residential (employment driven) land uses which could occur with the per capita approach.

A SP-based GHG efficiency metric (see Table 7) was derived from the emission rates at the State level that would accommodate projected population and employment growth under trend forecast conditions, and the emission rates needed to accommodate growth while allowing for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020).

Table 7 – California 2020 GHG Emissions, Population Projections and GHG Efficiency Thresholds - All Inventory Sectors	
All Inventory Sectors Greenhouse Gas Emissions Target	426,500,000
Population	44,135,923
Employment	20,194,661
California Service Population (Population + Employment)	64,330,584
AB 32 Goal GHG emissions (metric tons CO ₂ e)/SP ¹	6.6
Notes: AB = Assembly Bill; CO ₂ e = carbon dioxide equivalent; GHG = greenhouse gas; SP = service population.	
¹ Greenhouse gas efficiency levels were calculated using only the “land use-related” sectors of ARB’s emissions inventory.	
Please refer to Appendix D for detailed calculations.	
Sources: Data compiled by EDAW 2009, ARB 2009a, DOF 2009, EDD 2009, ICF Jones & Stokes 2009.	

If a general plan demonstrates, through dividing the emissions inventory projections (MT CO₂e) by the amount of growth that would be accommodated in 2020, that it could meet the GHG efficiency metrics proposed in this section (6.6 MT CO₂e/SP from all emission sectors, as noted in Table 7), then the amount of GHG emissions associated with the general plan would be considered less than significant, regardless of its size (and magnitude of GHG emissions). In other words, the general plan would accommodate growth in a manner that would not hinder the State’s ability to achieve AB 32 goals, and thus, would be less than significant for GHG emissions and their contribution to climate change. The efficiency metric would not penalize well-planned communities that propose a large amount of development. Instead, the SP-based GHG efficiency metric acts to encourage the types of development that BAAQMD and OPR support (i.e., infill and transit-oriented development) because it tends to reduce GHG and other air pollutant emissions overall, rather than discourage large developments for being accompanied by a large mass of GHG emissions. Plans that are more GHG efficient would have no or limited mitigation requirements to help them complete the CEQA process more readily than plans that promote GHG inefficiencies, which will require detailed design of mitigation during the CEQA process and could subject a plan to potential challenge as to whether all feasible mitigation was identified and adopted. This type of threshold can shed light on a well-planned general plan that accommodates a large amount of growth in a GHG-efficient way.

When analyzing long-range plans, such as general plans, it is important to note that the planning horizon will often surpass the 2020 timeframe for implementation of AB 32. Executive Order S-3-05 establishes a more aggressive emissions reduction goal for the year 2050 of 80 percent below 1990 emissions levels. The year 2020 should be viewed as a milestone year, and the general plan should not preclude the community from a trajectory toward the 2050 goal. However, the 2020 timeframe is examined in this threshold evaluation because doing so for the 2050 timeframe (with respect to population, employment, and GHG emissions projections) would be too speculative. Advances in technology and policy decisions at the state level will be needed to meet the aggressive 2050 goals. It is beyond the scope of the analysis tools available at this time to examine reasonable emissions reductions that can be achieved through CEQA analysis in the year 2050. As the 2020 timeframe draws nearer, BAAQMD will need to reevaluate the threshold to better represent progress toward 2050 goals.

2.3.4 GREENHOUSE GAS REDUCTION STRATEGIES

Finally, many local agencies have already undergone or plan to undergo efforts to create general or other plans that are consistent with AB 32 goals. The Air District encourages such planning efforts and recognizes that careful upfront planning by local agencies is invaluable to achieving the state's GHG reduction goals. If a project is consistent with an adopted Qualified Greenhouse Gas Reduction Strategy that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emission impacts. This approach is consistent with CEQA Guidelines Sections 15064(h)(3) and 15183.5(b), which provides that a "lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem."

A qualified Greenhouse Gas Reduction Strategy (or similar adopted policies, ordinances and programs) is one that is consistent with all of the AB 32 Scoping Plan measures and goals. The Greenhouse Gas Reduction Strategy should identify a land use design, transportation network, goals, policies and implementation measures that would achieve AB 32 goals. Strategies with horizon years beyond 2020 should consider continuing the downward reduction path set by AB 32 and move toward climate stabilization goals established in Executive Order S-3-05.

Qualified Greenhouse Gas Reduction Strategy

A qualified Greenhouse Gas Reduction Strategy adopted by a local jurisdiction should include the following elements as described in the State CEQA Guidelines Section 15183.5. The District's revised CEQA Guidelines provides the methodology to determine if a Greenhouse Gas Reduction Strategy meets these requirements.

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

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SUPPORTING EVIDENCE**

mixed use projects, and transit priority projects consistent with an applicable SCS or APS, need not analyze GHG impacts from cars and light-duty trucks.

2.2 SUBSTANTIAL EVIDENCE SUPPORTING PROJECT LEVEL GHG THRESHOLDS

There are several types of thresholds that can be supported by substantial evidence and be consistent with existing California legislation and policy to reduce statewide GHG emissions. In determining which thresholds to recommend, staff studied numerous options, relying on reasonable, environmentally conservative assumptions on growth in the land use sector, predicted emissions reductions from statewide regulatory measures and resulting emissions inventories, and the effectiveness of GHG mitigation measures.

Staff recommends setting GHG significance thresholds based on AB 32 GHG emission reduction goals after taking into account the emission reductions expected from the strategies outlined in ARB's Scoping Plan. The GHG CEQA significance thresholds recommended in this document were based on substantial technical analysis and provide a quantitative and/or qualitative approach for GHG evaluation. Until AB 32 has been fully implemented in terms of adopted regulations, incentives, and programs, and until SB 375 required plans have been fully adopted, or the California Air Resources Board (ARB) adopts a recommended threshold, the APCD recommends that local agencies throughout SLO County apply the GHG thresholds set forth herein.

The following sections provide the detailed description of the thresholds being proposed. Different thresholds have been developed to accommodate various development types and patterns. Three options are recommended for residential / commercial development:

- 1) Qualitative Reduction Strategies (e.g., Climate Action Plans): a qualitative threshold that is consistent with AB 32 Scoping Plan measures and goals;
- 2) Bright-Line Threshold: numerical value to determine the significance of a project's annual GHG emissions;
- 3) Efficiency-Based Threshold: assesses the GHG efficiency of a project on a per capita basis.

Residential and commercial projects may use any of the three options above to determine the significance of a project's GHG emission impact to a level of certainty for lead agencies. In addition to the residential/commercial threshold, one threshold is also proposed for stationary source (industrial) projects.

2.2.1 Qualified GHG Reduction Strategies

Many local agencies have already undergone or plan to undergo efforts to create or update general plans or other plans consistent with AB 32 goals. The Air District encourages such planning efforts and recognizes that careful upfront planning by local agencies is invaluable to achieving the state's GHG reduction goals. If a project is consistent with an adopted Qualified Greenhouse Gas Reduction

Strategy (e.g. Climate Action Plan) that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emission impacts and the project would be considered less than significant. This approach is consistent with CEQA Guidelines Sections 15064(h)¹¹ and 15183.5(b), which provides that a "lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem."

A Qualified Greenhouse Gas Reduction Strategy (or similar adopted policies, ordinances and programs) is one that is consistent with all of the AB 32 Scoping Plan measures and goals. The Greenhouse Gas Reduction Strategy should identify a land use design, transportation network, goals, policies and implementation measures that would achieve AB 32 goals. Strategies with horizon years beyond 2020 should consider continuing the downward reduction path set by AB 32 and move toward climate stabilization goals established in Executive Order S-3-05.

A Qualified Greenhouse Gas Reduction Strategy adopted by a local jurisdiction should include the following elements as stated in the State CEQA Guidelines Section 15183.5:

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- (F) Be adopted in a public process following environmental review.

The District's revised CEQA Handbook will include detailed methodology to determine if a Greenhouse Gas Reduction Strategy meets these requirements. In addition, the APCD has developed more specific guidance intended to assist local governments in developing community scale Climate Action Plans. The guidance emphasizes the need for GHG inventories to be comprehensive and based on valid, well documented methodologies; the reduction strategies developed as part of the Climate Action Plans should rely on mandatory measures that address both new and existing development. Please refer to Attachment 1 for the complete guidance document.

¹¹ California Air Resources Board. 2010 (December). California Greenhouse Gas Inventory for 2000-2008-by IPCC Category. Sacramento, CA. Available: http://arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_00-08_all_2010-05-12.pdf. Accessed December 1, 2011.

APCD staff recognizes some communities in SLO County have been proactive in planning for climate change but have not yet developed a stand-alone Greenhouse Gas Reduction Strategy that meets the above criteria. Nonetheless, some jurisdictions have adopted climate action policies, ordinances and programs that may, in fact, achieve the goals of AB 32 and a Qualified Greenhouse Gas Reduction Strategy. If a local jurisdiction can demonstrate its collective set of climate action policies, ordinances and other programs is consistent with AB 32 and State CEQA Guidelines Section 15183.5, and includes requirements or feasible measures to reduce its GHG emissions to 1990 levels or 15% below 2008 emission levels, staff recommends the AB 32 consistency demonstration be considered equivalent to a Qualified Greenhouse Gas Reduction Strategy.

Qualified Greenhouse Gas Reduction Strategies that are tied to the AB 32 reduction goals would promote reductions on a plan level without impeding the implementation of GHG-efficient development, and would recognize the initiative of many SLO County communities who have already developed or are in the process of developing a GHG Reduction Plan. Compliance with a Qualified Greenhouse Gas Reduction Strategy (or equitably similar adopted policies, ordinances and programs) would provide the evidentiary basis for making CEQA findings that development consistent with the plan may normally be considered to have a less than significant GHG emissions impact. Therefore, projects approved under qualified Greenhouse Gas Reduction Strategies or equivalent demonstrations would achieve their fair share of GHG emission reductions in meeting AB 32 goals.

2.2.2 Land Use Projects Bright-Line Threshold

The methodology used in developing the Bright-Line Threshold is intended to help reach the AB 32 emission reduction targets by attributing an appropriate share of the GHG reductions needed from new land use development projects subject to CEQA in the SLO County region. This approach is referred to as the “gap-based approach.” This approach is a conservative method that focuses on a limited set of state mandates that are currently expected to have the greatest potential to reduce land use development-related GHG emissions. This approach is predicated on the premise that there is a shortfall, or “gap” between the current emissions trajectory (projected emissions with existing control measures) and the desired emissions trajectory needed to reach a defined emissions level at a point in time—the target year. Figure 1 is a graphic representation of the gap-based approach concept.

Figure 1

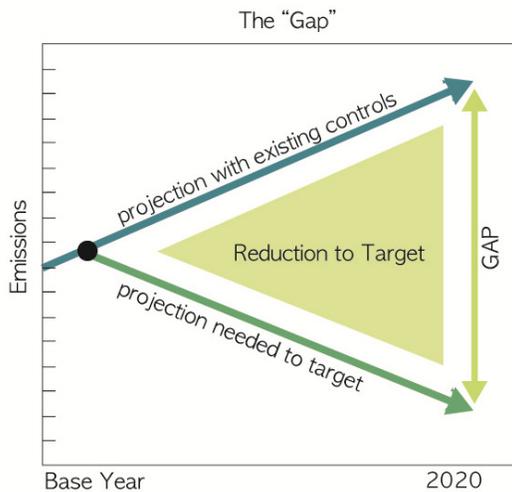


Figure 1: The gap is the amount of GHG emissions reductions that are needed beyond existing controls to meet the reduction target. The recommended threshold will close the gap between the projection with existing controls and the projection needed to reach the target emissions inventory.

The threshold of significance derived from the gap-based approach is assumed to reduce a certain level of emissions from each new land use project expected to be built by the target year (2020). Thus the threshold of significance defines the level of a project’s emissions that, under CEQA, would require the project to include emission reduction measures (mitigation) to lessen the project’s significance. The appropriate threshold level is found when the total reductions from all new land use projects achieves the level of emission reductions needed to close the gap and alleviate the predicted shortfall.

Preparing the Gap Analysis entailed estimating the statewide growth in emissions between 1990 and 2020 attributable to the land use-driven sectors of the GHG emissions inventory. The emission inventories for 1990 and 2020 were used because AB 32 requires that GHG emissions projected to occur in 2020 under existing conditions be reduced to 1990 emissions level by 2020. This data was used in the Gap Analysis to assess the overall level of emission reductions needed to close the gap (target year shortfall). Only the land use-driven emission sectors (emission sources affected by land use) were considered because the Bright-Line Threshold will apply only to future land use projects. The emission inventory sectors related to land use include On-Road and Off-Road Passenger Vehicles, Electricity and Cogeneration, Residential and Commercial Fuel Use, Landfills, Domestic Wastewater Treatment, Wineries, and Lawn and Off-Road Equipment (i.e. construction vehicles).

GHG reductions expected from a few Scoping Plan measures have not yet been accounted for in ARB’s 2020 GHG emissions inventory forecasts (i.e., business as usual). An adjustment was made (credit given) to include those reductions that are also associated with key Scoping Plan measures affecting the land use-driven sectors, such as the Low Carbon Fuel Standard (LCFS), Senate Bill 375 (SB 375), and improvements in energy efficiency. Factoring in these reductions (subtracting from the overall gap referred to above) provided the net residual reduction needed from future regional land use projects.

If all areas of the state reduced their new land use emissions by the percentage reduction derived above, the statewide shortfall (gap) from the land use sector would be eliminated; the percentage reduction needed statewide is each region’s fair share of the statewide reduction goal. Thus, the percentage of the statewide reduction needed, or gap, was applied to the SLO County regional land use sector GHG emissions inventory to derive the total aggregate annual mass emission reductions

needed to provide our fair share of reductions from all new regional land use projects anticipated through 2020.

In order to determine the types, sizes and number of future land use projects from which to realize these reductions, development trends in the SLO County region over the past ten years were analyzed. For each future project a baseline, unmitigated emissions level (i.e. assuming all projects were built in conformance with currently adopted building codes) was calculated using computer modeling. In an iterative process referred to as a “threshold sensitivity analysis,” various threshold levels and mitigation effectiveness options were analyzed. Each future project with emissions greater than a potential threshold level was assumed to mitigate down to the threshold level or, if unable to feasibly reduce emissions to the threshold level, was assumed to reduce emissions by a given percentage of their total emissions (mitigation effectiveness). Through this iterative analytical process, a threshold level was found that achieved sufficient mass reductions from all future projects to equal the predicted regional 2020 gap, or shortfall.

Development of the Bright-Line Threshold approach involved comprehensive evaluation and analyses through a well-defined eight step process, which is summarized below:

Step 1 Estimate Overall Statewide Growth in GHG Emissions

Using ARB’s statewide GHG emissions,¹² estimate the growth in emissions between 1990¹³ and 2020¹⁴ that can be attributed to “land use-driven” sectors of the emission inventory. Land use-driven emission sectors include the following categories; Transportation (On-Road Passenger Vehicles; On-Road Heavy Duty), Electric Power (Electricity; Cogeneration), Commercial and Residential (Residential Fuel Use; Commercial Fuel Use), Recycling and Waste (Landfills; Domestic Waste Water Treatment), Agriculture/Farming (Winery), and Off-road Equipment (Lawn and Garden, Entertainment Equipment, Recreational Equipment, Pleasure Craft, Light Commercial Equipment, Construction and Mining Equipment).

¹² California Air Resources Board. 2007 (November). California Greenhouse Gas Inventory (millions of metric tonnes of CO₂ equivalent)-By IPCC Category. Sacramento, CA. Available: http://www.arb.ca.gov/cc/inventory/archive/tables/ghg_inventory_ipcc_90-04_all_2007-11-19.pdf. Accessed December 1, 2011.

¹³ California Air Resources Board. 2010 (December). California Greenhouse Gas Inventory for 2000-2008-by IPCC Category. Sacramento, CA. Available: http://arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_00-08_all_2010-05-12.pdf. Accessed December 1, 2011.

¹⁴ California Air Resources Board. 2010 (October). Greenhouse Gas Inventory – 2020 Emissions Forecast. Sacramento, CA. Available: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>. Accessed December 1, 2011.

Methodology: The 2020 projected GHG emissions for land use sectors were developed using growth factors computed from historic trend data that best matched the prospective growth for each sector analyzed. Some examples include:

- a. Electricity Usage and On-Road Passenger Vehicles: The predicted 2020 GHG emissions associated with SLO County electricity and passenger vehicle usage was estimated from the average growth factor associated with the SLO County population from 2000 to 2010 as reported by the Federal Reserve, which used Federal Census data.
- b. Lawn & Garden Equipment: The predicted 2020 GHG emissions for this sector was based on an annual average growth in all SLO County dwelling units based on the number of units in the 2010 Census compared to the San Luis Obispo Council of Government's projected number of units for 2020.
- c. On-Road Heavy Duty Trucks and Commercial Fuel Use: The predicted 2020 GHG emissions for these sectors were based on a projected SLO County economic trend using 2000 to 2010 countywide employment data from the California Employment Development Department (EDD) as the indicator. The 2000 to 2010 trend slope was then extrapolated to 2020 to determine the projected GHG emissions for that year.

Result: As shown in Table 1, California's 1990 land use-driven GHG emissions were estimated at 308.35 MMT CO₂e/yr,¹⁵ while the 2020 business-as-usual land use GHG emissions are projected to be 343.06 MMT CO₂e/yr. Thus a **10.12 % reduction** from projected 2020 land use-driven GHG emissions would be necessary statewide to meet the AB 32 goal of returning to 1990 emission levels by 2020.

¹⁵ California Air Resources Board. 2007(November). California Greenhouse Gas Inventory-Summary by Economic Sector. Sacramento, CA. Available: www.arb.ca.gov/cc/inventory/archive/tables/ghg_inventory_sector_90-04_sum_2007-11-19.pdf. Accessed December 1, 2011.

Table 1

California 1990, 2008, and 2020 Land Use Sector GHG Emissions (MMT CO₂e/yr)				
Sector	1990 Emissions	2008 Emissions Projections	2020 BAU Emissions Projections	% of 2020 Total
Transportation	137.99	162.80	168.10	49.00%
On-Road Passenger Vehicles	108.95	128.00	127.00	37.02%
On- Road Heavy Duty	29.05	34.80	41.20	12.01%
Electric Power	110.63	117.20	107.60	31.37%
Electricity	95.39	103.00	91.10	26.56%
Cogen	15.20	14.20	16.50	4.81%
Commercial and Residential	44.08	43.10	45.30	13.20%
Residential Fuel Use	29.66	28.40	31.00	9.04%
Commercial Fuel Use	14.43	14.70	13.90	4.05%
Recycling and Waste	9.09	8.68	10.45	3.05%
Landfill	6.26	6.71	8.50	2.48%
Domestic Waste Water Treatment	2.83	1.97	1.95	0.57%
Agriculture/Farming	0.20	0.25	0.31	0.09%
Winery	0.20	0.25	0.31	0.09%
Off-road Equipment	6.36	9.21	11.29	3.29%
Lawn and Garden Equipment Subtotal	0.43	0.56	0.65	0.19%
Recreational & Pleasurecraft	1.23	1.73	2.55	0.74%
Light Commercial Equipment Subtotal	0.91	1.00	1.04	0.30%
Construction & Mining Equipment Subtotal	3.78	5.92	7.05	2.06%
TOTAL GROSS EMISSIONS	308.35	341.24	343.06	100%
*MMT CO ₂ e/yr. = Million Metric Tons Carbon Dioxide Equivalent per year			Calculation: 1 - (308.35 / 343.06) = 0.1012	
% Reduction Goal from Statewide Land Use Driven Sectors			10.12%	

Table 1: Land use sector GHG emissions were quantified for the years 1990, 2008, and 2020. Based on comparison to the reduction goals set by the State, a **10.12%** reduction in overall emissions would be needed to reach the 2020 goal.

Step 2 Estimate Statewide “Off-Inventory” GHG Reductions

Estimate the anticipated GHG emission reductions affecting the same land use-driven emissions inventory sectors associated with statewide measures identified in the AB 32 Scoping Plan not yet incorporated into ARB’s GHG emissions inventory (i.e. “off-inventory” reductions). These measures, as described in the Scoping Plan, include:

Low Carbon Fuel Standard (LCFS)

According to the staff report for the adopted LCFS rule (CARB, April 2009), the LCFS is expected to result in an approximate 10% reduction in the carbon intensity of transportation fuels. This will result in GHG emission reductions in both the transportation fuel production process and in the mobile-sources burning the lower carbon fuels. Based on CARB’s estimate of 15 MMT reductions in on-road emissions from implementation of the LCFS and comparison to the statewide on-

road emissions sector, the LCFS is estimated to result in a 4.6% reduction in SLO County's on-road transportation sector.

SB 375 (Sustainable Communities and Climate Protection Act)

The Scoping Plan used 5.0 MMT CO₂e as a placeholder for potential GHG reductions that could be achieved by the Sustainable Communities and Climate Protection Act of 2008 (SB 375) through sustainable regional transportation and land use planning strategies. The SB 375 Staff Report lowered that estimate to 3.0 MMT CO₂e, which is the aggregate reductions expected from the regional passenger vehicle GHG reduction targets established for the 18 Metropolitan Planning Organizations approved in 2010. For SLO County, SB 375 is projected to achieve GHG reductions of approximately one percent from on-road transportation.

Energy Efficiency and Solar Roof

Energy efficiency and renewable energy measures from the Scoping Plan were also included in the Gap Analysis. The Scoping Plan estimates that energy efficiency gains with periodic improvement in building and appliance energy standards and incentives will reach 6% for natural gas and 13% electricity statewide. The final state measure included in this Gap Analysis is the solar roof initiative, which is estimated to result in reduction of the overall electricity inventory of 1.2%.

Since the GHG reductions expected from these Scoping Plan measures were not accounted for in ARB's or APCD's 2020 GHG emissions inventory forecasts (i.e., business as usual), an adjustment (credit given) was made to include reductions associated with these key Scoping Plan measures for the land use-driven sectors.

Methodology: This step estimates the anticipated reductions in the 2020 GHG emissions inventory that will occur from Scoping Plan measures that ARB has not yet incorporated into the statewide GHG emissions inventory.

- a. Estimate the total statewide 2020 emissions reduction for that portion of the off-inventory source category affected by land use development.
- b. Determine the portion of the regional end use inventory sector (e.g. On-Road Transportation, Natural Gas) affected by the statewide reduction for each Scoping Plan measure.
- c. Calculate the scaled percentage of the regional inventory reduction for each regional end use sector affected by land use development.

Result: As shown in Table 2, an estimated **9.57%** reduction can be expected in the land use-driven GHG emissions inventory from adopted Scoping Plan regulations, including Low Carbon Fuel Standards, Sustainable Community Strategies, Energy-Efficiency Measures, and Solar Roofs.

Table 2

2020 Land Use Sector GHG Emission Reductions from State Regulations & AB 32 Measures				
Affected Emissions Source	California Legislation/AB32 Measure	% Reduction from Statewide 2020 LU GHG Inventory	End Use Sector	Scaled % Emissions Reduction of SLO Area LU Sector (Credit to Overall Statewide LU Gap)
Mobile	LCFS* (On road only)	7.9%	On road transportation (Pass, LD*) (46%)	3.6%
	LCFS* (On road only)	9.7%	On road transportation (HD*/MD*) (10%)	1.0%
	SB 375	2.4%	On road transportation (Pass, LD) (46%)	1.1%
Area	Energy Efficiency - Gas	6.0%	Natural gas (Residential) (12%)	0.8%
			Natural gas (Commercial) (4%)	0.2%
	Energy Efficiency - Electricity	13.1%	Electricity (20%)	2.6%
Indirect	Solar Roof	1.2%	Electricity (exclude Cogen) (19%)	0.2%
Total credits given land use-driven emission inventory sectors from Scoping Plan Measures				9.57%
*LCFS = Low Carbon Fuel Standard			*MD = Medium Density	
*LD = Low Density			*HD = High Density	

Table 2: Based on land use sector GHG emission reductions from statewide regulations and AB 32 measures not included in the inventory prepared by ARB, a reduction of **9.57%** in GHG emissions from this sector is expected to occur by 2020. This value is used to calculate the remaining gap.

Step 3 Calculate the Statewide GHG Emission Gap

Determine any short fall or “gap” between the 2020 statewide emission inventory estimates and the anticipated emission reductions from adopted Scoping Plan regulations. This “gap” represents additional GHG emission reductions needed statewide from the land use-driven emissions inventory sectors, which represents new land use development’s fair share of the emission reductions needed to meet statewide GHG emission reduction goals.

Methodology: This estimates the additional regional emission reductions needed from the projected regional 2020 projected inventory.

- Divide the 1990 statewide land use sector emissions inventory (308.35 MMT CO₂e/yr.) by the projected 2020 emissions inventory (343.06 MMT CO₂e/yr.); this shows a **10.12%** percent difference (gap) in GHG emissions between 1990 and 2020.
- Subtract the statewide off-inventory reductions calculated in Step 2 above (**9.57%**) from the total estimated statewide reduction gap (**10.12%**) to determine the additional land use sector reductions needed to achieve AB 32 goals (**0.55%**).

Result: The statewide “gap” (emission reductions from the 2020 land use sector inventory needed to reach the statewide 1990 land use inventory goal) was calculated to be a **10.12%** reduction. With the **9.57%** reductions from AB 32 off-inventory Scoping Plan Measures calculated in Step 2 above, there is a “gap” of **0.55%** in necessary additional GHG emissions reductions to meet AB 32 goals of a **10.12%** reduction from statewide land use-driven GHG emissions to return to 1990 levels in 2020.

Table 3

Calculating the Gap	
% Reduction Goal from Statewide Land Use Driven Sectors	10.12%
Total credits given land use-driven emission inventory sectors from Scoping Plan Measures	9.57%
Statewide CEQA Gap (Statewide Reductions Needed Beyond Scoping Plan Measures)	0.55%

Table 3: The statewide land use emissions “gap” between projections with existing control and the reduction goals set by AB-32 is **0.55%**, after factoring in the off-inventory land use credits that will be applied from Scoping Plan measures.

Step 4 Apply the Statewide Gap to SLO County Regional Land Use Emissions GHG Inventory

Determine the percent reduction this “gap” represents in the land use-driven emissions inventory sectors from the SLO County Regional 2020 GHG emissions inventory. Identify total emission reductions needed in SLO County to fill the gap from land use-driven emissions inventory sectors¹⁶.

Methodology: The total estimated additional regional reductions needed was calculated by multiplying the total projected land use sector emissions for 2020 (2,506,983 MT CO₂e/yr.) by the remaining gap of **0.55%**.

Result: As shown in Table 4 below, 2008 land use-driven GHG emissions in the SLO County Region were estimated at 2,304,333 MT CO₂e/yr, with 2020 emission projected at 2,506,983 MT CO₂e/yr under business-as-usual conditions. The 2008 land use driven GHG emissions were the baseline use to perform the 2020 projections. Multiplying the projected 2020 SLO County GHG emissions of 2,506,983 MT CO₂e/yr by the **0.55%** reduction gap determined in Step 3 above results in an estimated **13,788** MT CO₂e/yr. of reductions needed from projected new development projects in SLO County to contribute our fair share toward achieving the statewide 2020 GHG reduction targets in AB 32.

¹⁶ San Luis Obispo County Air Pollution Control District. “trklst08.xls.” 2011 (June). *Microsoft Excel*. file.

Table 4

SLO County Regional Land Use 2008, 2020 GHG Emissions Inventories and Projections (MT CO₂e/yr)*			
Sector	2008 Emissions (MT CO₂e/yr)*	2020 Forecast w/ Annual Compounding	% of Total
Transportation	1,310,997.19	1,419,690.39	57%
On-Road Passenger Vehicles	1,065,344.33	1,159,744.28	46%
On-Road Heavy Duty	245,652.86	259,946.11	10%
Off-road Res. and Light Commercial	78,398.29	97,974.75	4%
Lawn and Garden Equipment	7,198.11	7,474.11	
Recreational & Pleasure craft	20,317.46	30,814.53	
Light Commercial Equipment	9,514.12	10,548.88	
Construction & Mining Equipment	41,368.59	49,137.23	
Electric Power	456,766.12	497,240.07	20%
Electricity	445,563.64	485,044.94	19%
Cogen	11,202.48	12,195.13	0%
Commercial and Residential	376,539.30	403,504.57	16%
Residential Fuel Use	291,353.48	313,362.23	12%
Commercial Fuel Use - Non-Permitted	85,185.82	90,142.34	4%
Recycling and Waste	72,023.60	78,405.60	3%
Landfill Combustion Sources	22,295.09	24,270.65	
Landfill Fugitive Sources	48,063.01	52,321.87	
Domestic Waste Water Treatment	1,665.51	1,813.09	
Agricultural/Farming	9,608.53	10,167.60	0.4%
Wineries	9,608.53	10,167.60	
Total Sectoral Emissions (MT CO₂e/yr)	2,304,333.03	2,506,982.99	100%
Statewide Gap (Applied to Regional Emissions Inventory)			0.55%
Calculation: 2,506,982.99 * 0.0055% = 13,788			
*MT CO ₂ e/yr. = Metric Tons Carbon Dioxide equivalent per year			
SLO County Regional Mass Emission Reductions Needed (MT CO₂e/yr)*			13,788

Table 4: The statewide gap of **0.55%** is multiplied by the regional GHG emission projections for 2020 (i.e. 2,506,982.99 MT CO₂e/yr.), leaving a total of **13,788** MT CO₂e/yr., which will need to be achieved locally from future land use projects to meet the emission reduction goals set by the state.

Step 5 Evaluate Historical Land Use Development Trends in SLO County to Estimate Potential Future Development

Assess SLO County's historical permit database for residential and nonresidential projects (2001-2010) and determine the frequency and distribution trends of project sizes and types that have been subject to CEQA over the past several years.

Methodology: By acquiring historical permit data from local governments and SLOCOG, historical patterns of residential and nonresidential development were determined by evaluating various parameters for each land use development type (e.g. - number of

persons per household; average square footage and number of employees per 1000 sf of commercial development, etc.). Permits were first categorized into individual projects, and then summarized by land use type. The results were then used to calculate typical historical project emissions for each type of land use using CalEEMod. The average project for each land use type was modeled to determine GHG emissions, amortizing construction emissions and adding them to the operational emissions. These emission calculations are used in Step 6 below to distribute anticipated SLO County growth among different future project types and sizes.

Result: The historical trend analysis found that, between 2001-2010, over 2,400 projects were approved to be built, with estimated emissions of more than 22,400 metric tons of CO₂e per year. Table 5 below provides a summary of the historical land use development in the SLO County region. Appendix 2 includes a detailed report of this summary.

Table 5

Historical SLO County Regional Land Use Projects & Emissions 2001-2010				
Land Use Type	Total LU Projects (2001-2010)	LU Projects Per Year (2001-2010)	Emissions from LU (2001-2010) MT CO₂e	Average Annual LU Emissions per year (2001-2010) MT CO₂e/yr
Residential	1,934	193	42,674	4,267
Non Residential	469	47	181,589	18,159
Total	2,403	240	224,263	22,426

Table 5: Between the years 2001 and 2010 there were 2,403 residential or nonresidential projects approved, equating to 240 projects per year. These projects resulted in emitting more than 22,400 MT CO₂e/yr.

Step 6 Project the Level of New Development Expected in SLO County By 2020

Forecast new land use development trends for SLO County through 2020 based on historical and recent trends. Translate the land use development projections into land use categories consistent with those contained in the California Emissions Estimator Model (CalEEMod).

Methodology: SLO County APCD recognized the continuing economic downturn needed to be factored into any estimates of future growth in land uses where projections are based on historical trends. Thus, this step used more conservative recent historical data (2000 and later) and future regional demographic information to define the growth factors needed to distribute the anticipated growth across the land use types and sizes used in the historical trend analysis in Step 5. The demographic information selected to define future growth rates for specific land use types included

SLO County population, employment, and dwelling units, with the data obtained from federal, state, and local sources. APCD staff specified the demographic parameter that seemed most applicable to each land use sector where future growth was to be determined for the gap analysis (Table 6).

For land use sectors where the growth factor is best represented by population, historical annual (2000 to 2010) SLO County population data was used to define the average annual population growth rate (0.7100%)¹⁷. For those land use sectors where an economic growth factor seemed most applicable, employment in SLO County was used as a surrogate using historic values over the years 2000 to 2010 to define the future economic growth rate (0.4724%)¹⁸. The future emissions from lawn and garden equipment associated with land uses was determined with a growth factor based on all dwelling units. The APCD used a conservative approach to predict the future growth rate (.3892%)¹⁹ of SLO County dwelling units using the 2010 U.S. census value²⁰ for this demographic as well as SLOCOG's dwelling unit predictions for 2015 and 2020¹⁸. Future land use emissions from related off-road recreational equipment and pleasure craft, and from residential fuel use, were estimated using a growth factor for occupied dwelling units. The APCD used a conservative approach to predict the future growth rate (0.6087%) of SLO County occupied dwelling units using census values for this parameter for 2000 and 2010¹⁹ and predicted occupied dwelling units for 2015 and 2020 based on SLOCOG's dwelling unit values for these years, minus the vacant properties for those years (determined using the average vacancy rate between 1990 and 2010¹⁹). For the Construction & Mining Equipment activities associated with future

¹⁷ Federal Reserve Bank of St. Louis. US Department of Commerce: Census Bureau. 2011. Resident Population in San Luis Obispo County, CA. Available: <http://research.stlouisfed.org/fred2/series/CASANL9POP?cid=27561>. Accessed January 17, 2012.

¹⁸ California Employment Development Department. September 16, 2011. San Luis Obispo–Paso Robles Metropolitan Statistical Area 1990 to 2010 Annual Average Industrial Employment Data Available: [www.calmis.ca.gov/file/indhist/slo\\$haw.xls](http://www.calmis.ca.gov/file/indhist/slo$haw.xls) accessed on: <http://www.calmis.ca.gov/htmlfile/county/slo.htm> . Accessed January 17, 2012.

¹⁹ San Luis Obispo County Council of Governments. 2010. 2040 Regional Growth Forecast. Available: http://library.slocog.org/PDFs/SpecialProjects/SLOCounty2040RegionalGrowthForecast_aug2011.pdf. Accessed December 1, 2011.

²⁰ U.S. Census “Total Housing Units” for SLO County for 2010, “Occupied Housing Units” for SLO County for 2000 and 2010, and “Vacant Housing Units” for SLO County for 1990, 2000, and 2010. Available: http://factfinder.census.gov/servlet/QTable?_bm=y&-context=qt&-qr_name=DEC_1990_STF1_DP1&-ds_name=DEC_1990_STF1_-CONTEXT=qt&-tree_id=403&-redoLog=false&-all_geo_types=N&-geo_id=05000US06079&-search_results=01000US&-format=&-_lang=en. Accessed January 17, 2012.

land use, 2020 emissions were directly estimated using ARB’s 2007 Off-road model²¹, therefore a growth factor was not necessary.

The total forecasted emissions for each land use type were combined to determine total emissions for all land use projects anticipated to occur in SLO County through 2020.

Result: Based on population and employment projections and the trend analysis from Step 5 above, approximately 1,142 new development projects were forecasted to occur in SLO County through 2020, averaging about 114 projects per year during that period.

Table 6

Summary of Average Annual Future Growth Rates Used for Defining Future GHG Emissions From Land Use Sectors		
Land Use Sector	Growth Factor	Average Annual Future Growth Rate
Transportation		
On-Road Passenger Vehicles	Population	0.7100%
On-Road Heavy Duty	Economic	0.4724%
Off-road Res. and Light Commercial		
Lawn and Garden Equipment	All Dwelling Units	0.3892%
Recreational & Pleasure craft	Occupied Dwelling Units	0.6087%
Light Commercial Equipment	Economic	0.4724%
Construction & Mining Equipment	N/A	N/A
Electric Power		
Electricity	Population	0.7100%
Cogen	Population	0.7100%
Commercial and Residential		
Residential Fuel Use	Occupied Dwelling Units	0.6087%
Commercial Fuel Use - Non-Permitted	Economic	0.4724%
Recycling and Waste		
Landfill Combustion Sources	Population	0.7100%
Landfill Fugitive Sources	Population	0.7100%
Domestic Waste Water Treatment	Population	0.7100%
Agricultural/Farming		
Wineries	Economic	0.4724%

Table 6: Future GHG emissions associated with land-uses were determined using historic trends to define applicable growth rates. APCD staff specified the type of growth factor that seemed most applicable to each land use sector. Table 6 summarizes the average annual growth factors used in this GHG forecasting and describes the methods used to define each growth factor.

²¹ California Air Resources Board. 2007. Off-road model. Available: www.arb.ca.gov/msei/offroad/offroad.htm. Accessed December 1, 2011.

Step 7 GHG Emissions Reductions Needed from Future Development in SLO County

Estimate the amount of GHG emissions from SLO County land use development through 2020 using CalEEMod. Determine the amount of GHG emissions that can reasonably and feasibly be reduced through currently available mitigation measures (“mitigation effectiveness”) for future land use development projects subject to CEQA (based on land use development projections and frequency distribution from Step 6 above).

Methodology: The amount of annual GHG emissions from each projected land use development average project type and size was estimated using CalEEMod and combined to determine the total annual emissions based on unmitigated modeling scenarios. Next, modeling was performed for various land use types and sizes using all reasonable feasible and available mitigation measures to determine the feasible mitigation effectiveness factor; examples of potential mitigation measures used in this analysis are shown in Appendix 3, Tables A-2 and B-2.

Result: Total emissions from new land use in SLO County region through 2020 are estimated to be approximately 114,969 MT CO₂e/yr. (18,068 MT CO₂e/yr. Residential; 96,901 MT CO₂e/yr. Nonresidential). Table 7 below provides a summary of projected land use development in the SLO County region.

Based on the mitigation measure information available and sample CalEEMod calculations, staff found mitigation effectiveness between 23 and 25 percent is feasible.

Table 7

Forecast for SLO County Regional Land Use Projects & Emissions to 2020				
Land Use Type	Total New LU* Projects (2011-2020)	New LU Projects/yr. (2011-2020)	New Emissions from LU (2011-2020) MTCO ₂ e	Average Annual LU Emissions per year (2011-2020) MTCO ₂ e/yr.
Residential	979	98	180,677	18,068
Non Residential	164	16	969,015	96,902
Total	1,142	114	1,149,692	114,969

*LU = Land Use

Table 7: New emissions from land use are forecasted to total 1,149,692 metric tons CO₂e between the years 2011 and 2020. These emissions are associated with an expected 1,142 new land use projects from the same years.

Step 8 Determine Threshold Level Needed to Close the Regional Gap of 13,788 MTCO₂e/yr.

Conduct a sensitivity analysis of the numeric GHG mass emissions threshold needed to achieve the 2020 emission reductions from the land use-driven emission sectors to meet SLO County's fair share of the statewide "gap", as determined in Step 4.

Methodology: The sensitivity analysis is an iterative process using the following steps:

1. The emissions above various potential threshold levels were calculated for each projected land use project (e.g. 900 MT, 1,000 MT, 1,200 MT, etc.); only those projects above a given threshold option were included in the analysis.
2. The remaining emissions for each project were then subjected to various mitigation effectiveness scenarios (e.g. 25%, 30% and 35%).
3. Mitigated emissions for each project were compared to a given threshold under iterative mitigation scenarios until the threshold level was achieved (CEQA only requires mitigation down to the threshold).
4. The final step in the process identified a threshold level (1,150 MT CO₂e/yr.) and mitigation effectiveness level (23 to 25 percent) that could achieve the total emission reductions needed from all future projects to close the regional "gap" of **13,788 MT CO₂e/yr** identified in Step 4, above. Examples of how this analysis was performed are shown in Appendix 3.

Result: Projects with unmitigated emissions (i.e. assuming all projects were built in conformance with currently adopted building codes) greater than the recommended threshold would be required to mitigate to the threshold level, or assumed to reduce project emissions by a percentage (mitigation effectiveness) deemed feasible based on currently available mitigation measures. The base year condition is defined by an equivalent size and type of project with annual emissions using the defaults in CalEEMod (unmitigated project emissions). By this method, land use project mitigations resulting from application of the CEQA GHG thresholds would help close the "gap" remaining after implementation of the key regulations and measures noted above.

The results of the sensitivity analysis conducted in Step 8 found that reductions of about **13,788 MT CO₂e/yr.** were achievable and feasible (see Table 8). A mass emissions threshold of **1,150 MT** of CO₂e/yr. is estimated to result in approximately 5% of all future projects being above the significance threshold and required to implement feasible mitigation measures through CEQA. This threshold level is approximately equivalent to the operational GHG emissions associated with a 70- unit residential subdivision in an urban setting (49- unit rural development) or a 40,000 sq. ft. strip mall in an urban setting. With 23 to 25 percent mitigation effectiveness, staff estimates the **1,150 MT CO₂e** threshold would achieve approximately 13,800-14,200 MT CO₂e/yr. in GHG emissions reductions from new development subject to CEQA from now through 2020. The Bright-Line Threshold of **1,150 MT CO₂e/yr.** is expected to capture a total of **56 projects** over the next 10 years; 26 residential projects and 30 non-residential projects.

Table 8

GHG Threshold Sensitivity Analysis						
Threshold Option (MT/Yr)*	No. of Projected New LU* Projects Over Threshold	Percent of Projects Over Threshold (Project Capture)	Percent of Emissions Over Threshold (Emissions Capture)	Overall Mitigation Program Effectiveness	Actual Mitigation Effectiveness	Emissions Reduced (MT/Yr)*
1100	56	5%	22%	25%	19.1%	16,508
				30%	20.5%	17,720
				35%	21.9%	18,933
1150	56	5%	19%	25%	16.4%	14,158
				30%	17.8%	15,370
				35%	19.2%	16,583
1175	56	5%	18%	25%	15.0%	12,983
				30%	16.4%	14,195
				35%	17.8%	15,408

*MT/Yr.= Metric Tons Per Year

*LU= Land Use

Table 8: The Bright-Line Threshold of **1150** MT CO₂e is expected to capture a total of 56 projects (or approximately 5% of total projects) over the next ten years.

Summary of the Bright-Line Threshold

Conducting the 8 Step Gap Analysis described above was a substantial undertaking requiring considerable data review and a variety of technical analyses. Based on the results of that effort, staff recommends a GHG emissions significance threshold of **1,150** MT CO₂e per year to achieve the aggregate emission reductions of **13,788** MT CO₂e/yr. needed in SLO County Region by 2020 to meet AB 32 reduction targets. As shown in Table 8, about 5% of all future projects would exceed that threshold and have to implement feasible mitigation measures to meet their CEQA obligations. These projects would account for approximately 19% of all GHG emissions anticipated to occur between now and 2020 from new land use development in SLO County.

The APCD recommends that project applicants and lead agencies use CalEEMod to estimate a project’s GHG emissions, based on project specific attributes, to determine if they are above or below the Bright-Line Threshold. After incorporating all emission-reducing features of a proposed project, those still exceeding the threshold would have to reduce their emissions below that level to be considered less than significant.

Establishing a “Bright-Line” to determine the significance of a project’s GHG emissions impact provides a level of certainty to lead agencies in determining when an EIR is required, and whether or not GHG mitigation is needed. If additional regulations and legislation aimed at reducing GHG emissions from land use-related sectors are adopted in the future, the **13,788** MT CO₂e/yr. GHG emissions reduction goal may be revisited and recalculated by APCD.

2.2.3 Efficiency-Based Threshold for Land Use Projects

GHG efficiency metrics can also be utilized as significance thresholds to assess the GHG efficiency of a project on a per capita basis (residential only projects) or on a “service population” basis (the sum of the number of jobs and the number of residents provided by a mixed-use project). GHG Efficiency

Thresholds can be determined by dividing the statewide GHG emissions inventory goal (allowable emissions) by the estimated statewide 2020 population and employment. This method allows highly efficient projects (e.g. compact and mixed use development) with higher mass emissions to meet the overall GHG reduction goals of AB 32.

Staff believes it most appropriate to base the land use Efficiency Threshold on the service population metric for the land use-driven emission inventory. This approach allows the threshold to be applied evenly to all project types (residential, commercial/retail and mixed use) and uses an emissions inventory comprised only of emission sources from land-use related sectors. The efficiency-based threshold encourages infill and transit-oriented development and puts highly auto-dependent suburban and rural development at a severe disadvantage.

Staff proposes a project-level Efficiency Threshold of **4.9** MT CO₂e/SP/yr.; the derivation of this is shown in Table 9. This efficiency-based threshold would accommodate larger, very GHG-efficient projects that would otherwise significantly exceed the bright-line threshold. As stated previously and below, staff anticipates these significance thresholds will function on an interim basis until adequate programmatic approaches are in place at the city, county, and regional level that can allow CEQA streamlining for individual projects. (See State CEQA Guidelines §15183.5 ["Tiering and Streamlining the Analysis of Greenhouse Gas Emissions"]).

To calculate the efficiency of an individual project for comparison to the efficiency threshold, one can use CalEEMod to estimate the annual CO₂e emissions (MT CO₂e/yr.); this value is then divided by the project's service population (population + employment). For projects where the employment is unknown, please refer to Attachment 4, "Employees per 1000sf" to estimate the number of employees associated with any project.

Table 9

Efficiency Threshold	
California 2020 Emissions, Population, Employment	
(Metric Tons CO ₂ e)	
Land Use Sectors Greenhouse Gas Emissions Target	308,349,358
Population	44,135,923
Employment	18,226,478
California Service Population (Population + Employment)	62,362,401
Project Level Efficiency Threshold	
Allowable GHG Emissions per Service Population (MT CO₂e/SP/Yr)*	4.9
*MT CO ₂ e/SP/Yr.= Metric Tons Carbon Dioxide equivalent per service population per year	

Table 9: With the Efficiency Threshold, a project can demonstrate compliance by being extremely efficient on a per-capita (service population) basis. Efficiency is calculated by dividing the emissions per year by the service population (residents plus employees). This threshold is a viable option for large, infill, transit-oriented projects that may exceed the Bright-Line Threshold, but are still extremely efficient.

**ENCLOSURE 3
SCAG
PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR 2016 RTP/SCS**

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section of the Program Environmental Impact Report (PEIR) describes the greenhouse gas (GHG) emissions and climate change in the SCAG region, discusses the potential impacts of the proposed 2016 Regional Transportation Plan/Sustainable Communities Strategies (“2016 RTP/SCS,” “Plan” or “Project”) on GHG emissions and climate change, identifies mitigation measures for the impacts, and evaluates the residual impacts (see also **Appendix C, Air Quality and Greenhouse Gas Emissions and Climate Change Technical Appendix**). GHG emissions and climate change were evaluated in accordance with Appendix G the 2015 State California Environmental Quality Act (CEQA) Guidelines. GHG emissions and climate change within the SCAG region were evaluated at a programmatic level of detail, in relation to the General Plans of the six counties and the 191 cities within the SCAG region; a review of related literature germane to the SCAG region, as well as a review of SCAG’s 2012 RTP/SCS PEIR.¹

Greenhouse gases (GHGs) trap heat in the atmosphere. GHGs are emitted by natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the earth’s temperature. The six major GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbon (PFCs). The GHGs absorb longwave radiant energy emitted by the earth, which warms the atmosphere. The GHGs also emit longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation emitted by the atmosphere is known as the “greenhouse effect.” Emissions from human activities such as fossil fuel combustion for electricity production and vehicles have elevated the concentration of these gases in the atmosphere.²

Definitions

Carbon Dioxide (CO₂): Enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

Carbon Dioxide-Equivalent (CO_{2e}): The standard unit to measure the amount of GHGs in terms of the amount of CO₂ that would cause the same amount of warming. CO_{2e} is based on the GWP ratios between the various GHGs relative to CO₂.

Chlorofluorocarbons (CFCs): One of a class of fluorinated gases with a high greenhouse warming potential, CFCs are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given

¹ Southern California Association of Governments. April 2012. Final Program Environmental Report: 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy. Available at: <http://rtpscs.scag.ca.gov/Pages/Final-2012-PEIR.aspx>

² South Coast Air Quality Management District. February 2013. *Final Environmental Impact Report for the 2012 Air Quality Management Plan*. Available at: [http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-\(february-2013\)/final-ceqa-eir/2012-program-environmental-impact-report-ch-3-2.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/final-ceqa-eir/2012-program-environmental-impact-report-ch-3-2.pdf?sfvrsn=2)

suitable conditions, they break down ozone. These gases are therefore being replaced by other GHG compounds covered under the Kyoto Protocol.

Climate Change: Climate change is the variation of earth's climate over time, whether due to natural variability or as a result of human activities. Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use.

Fluorinated Gases: Synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but they are potent GHGs, sometimes referred to as high greenhouse warming potential gases.

Global Warming Potential (GWP): Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO₂) over a given period of time (20, 100, and 500 years). CO₂ has a GWP of 1.

Greenhouse Gases (GHGs): GHGs are those compounds in the earth's atmosphere that play a critical role in determining the earth's surface temperature. Specifically, these gases allow high-frequency solar radiation to enter the earth's atmosphere but retain the low-frequency energy, which is radiated back from the earth to space, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Increased concentrations of GHGs in the earth's atmosphere are thought to be linked to global climate change, such as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increasing frequency and magnitude of severe weather.

GHGs include CO₂, CH₄, O₃, water vapor, N₂O, HFCs, PFCs, and SF₆. Carbon dioxide is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential than CO₂. (Table 3.8-1, *Greenhouse Gases and Their Relative Warming Potential Compared to CO₂*).

**TABLE 3.8-1
GREENHOUSE GASES AND THEIR RELATIVE GLOBAL WARMING POTENTIAL
COMPARED TO CO₂**

GHG	Atmospheric Lifetime (years)	Global Warming Potential Relative to CO ₂ ^a
Carbon Dioxide (CO ₂)	50 to 100	1
Methane (CH ₄) ^b	12 (±3)	25
Nitrous Oxide	120	298
Hydrofluorocarbons:		
HFC-23	264	14,800
HFC-32	5.6	675
HFC-125	32.6	3,500
HFC-134a	14.6	1,100
HFC-143a	48.3	1,430
HFC-152a	1.5	124
HFC-227ea	36.5	3,220
HFC-236fa	209	9,810
HFC-43-10mee	17.1	1,640
Perfluoromethane: CF ₄	50,000	7,390
Perfluoroethane: C ₂ F ₆	10,000	12,200
Perfluorobutane: C ₄ F ₁₀	2,600	8,860
Perfluoro-2-methylpentane: C ₆ F ₁₄	3,200	9,300
Sulfur Hexafluoride (SF ₆)	3,200	22,800

NOTE:

- a. Based on 100-Year Time Horizon of the Global Warming Potential (GWP) of the air pollutant relative to CO₂.
- b. The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

SOURCE:

Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4). 4 April 2014. *Emission factors for greenhouse gas inventories*. Available at: <http://www.epa.gov/climateleadership/documents/emission-factors.pdf>

Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. GHGs are the result of natural and anthropogenic activities. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

Understanding of the fundamental processes responsible for global climate change has been improved over the past decade, and the predictive capabilities are advancing. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the earth's climate system, the uncertainty in its description and in the prediction of changes may never be completely eliminated. Because of these uncertainties, there continues to be significant debate over the extent to which increased concentrations of GHGs have caused or will cause climate change and over the appropriate actions to limit and/or respond to climate change.

Hydrofluorocarbons (HFCs): One of a class of fluorinated gases with a high greenhouse warming potential, HFCs contain only hydrogen, fluorine, and carbon atoms. They were introduced as

alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs.

Hydrochlorofluorocarbons (HCFCs): One of a class of fluorinated gases with a high greenhouse warming potential, HCFCs contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are GHGs.

Methane (CH₄): Emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

MTCO_{2e}: Metric ton of CO_{2e}.

MMTCO_{2e}: Million metric tons of CO_{2e}.

Nitrous oxide (N₂O): Emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

Sulfur Hexafluoride (SF₆): One of a class of fluorinated gases with a high greenhouse warming potential, SF₆ is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHGs used primarily in electrical transmission and distribution systems as an insulator.

Perfluorocarbons (PFCs): One of a class of fluorinated gases with a high greenhouse warming potential, PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

3.8.1 REGULATORY FRAMEWORK

This regulatory framework focuses on the international, federal, state, and local statutes and regulations where the primary objective is reduction of GHG emissions. However, there are other regulations that are focused on increased energy efficiency and transportation improvements, that if accomplished would be expected to contribute to per capita reductions in GHG emissions. Those regulations have been addressed respectively in Section 3.6, *Energy*, and Section 3.17, *Transportation, Traffic, and Safety*.

International

U.S.-China Climate Agreement

In November 2014, the United States and China made a joint announcement to cooperate on combatting climate change and promoting clean energy. In the U.S., President Obama announced a climate target to reduce greenhouse gas emissions by 26 to 28 percent below 2005 levels by 2025. In

China, President Xi Jinping announced a climate target to reduce peak CO₂ emissions by 2030 and to increase the renewable energy share across all sectors to 20 percent by 2030. China will need to build an additional 800 to 1,000 gigawatts of nuclear, wind, solar, and other zero emission generation capacity by 2030 to reach this target. Together, the United States and China have agreed to: expand joint clean energy research and development at the U.S.-China Clean Energy Research Center (CERC), advance major carbon capture, use and storage demonstrations, enhance cooperation on HFCs, launch a climate-smart/low-carbon cities initiative, promote trade in green goods, and demonstrate clean energy on the ground.³

United Nations Framework Convention on Climate Change (UNFCCC)

A new international climate change agreement will be adopted at the Paris UNFCCC climate conference in December 2015 and implemented from 2020. The last two climate conferences in Warsaw (2013) and Lima (2014) decided that countries shall submit their proposed emissions reduction targets for the 2015 conference as “intended nationally determined contributions” prior to the Paris conference. The European Union has committed to an economy-wide, domestic greenhouse gas reduction target of 40 percent below 1990 levels by 2030.⁴ The United States has set its intended nationally determined contribution to reduce its greenhouse gas emissions by 26 to 28 percent below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28 percent. These targets are set with the goal of limiting global temperature rise to below 2 degrees Celsius and getting to the 80 percent emission reduction by 2050.⁵

Federal

Federal Clean Air Act, Section 111

Under Section 111 of the Federal Clean Air Act (CAA, 42 U.S. Code [USC] §7401 et seq.), the U.S. Environmental Protection Agency (EPA) issues standards, regulations, and guidelines to reduce carbon pollution on new, modified and existing power plants. Section 111(b) creates a federal program to establish standards for new, modified, and reconstructed stationary sources. Section 111(d) is a state-based program for existing stationary sources where the EPA sets the guidelines and the states implement programs to meet those guidelines.⁶

³ The White House. *Fact Sheet: U.S.-China Joint Announcement on Climate Change and Clean Energy Cooperation*. 11 November 2014. Available at: <https://www.whitehouse.gov/the-press-office/2014/11/11/fact-sheet-us-china-joint-announcement-climate-change-and-clean-energy-c>

⁴ European Commission. Accessed 13 October 2015. *The 2015 international agreement*. Available at: http://ec.europa.eu/clima/policies/international/negotiations/future/index_en.htm

⁵ United Nations Framework Convention on Climate Change (UNFCCC). Accessed 14 October 2015. *United States Intended Nationally Determined Contribution*. Available at: <http://www4.unfccc.int/submissions/INDC/Published%20Documents/United%20States%20of%20America/1/U.S.%20Cover%20Note%20INDC%20and%20Accompanying%20Information.pdf>

⁶ Environmental Protection Agency. 3 August 2015. *Regulatory actions*. Available at: <http://www2.epa.gov/cleanpowerplan/regulatory-actions#CAP>

Clean Power Plan

On August 3, 2015, President Obama and the EPA announced the Clean Power Plan. The Clean Power Plan sets achievable standards to reduce carbon dioxide emissions by 32 percent from 2005 levels by 2030.⁷ This Plan establishes final emissions guidelines for states to follow in developing plans to reduce GHG emissions from existing fossil fuel-fired electric generating units (EGUs). Specifically, the EPA is establishing: (1) carbon dioxide emission performance rates representing the best system of emission reduction (BSER) for two subcategories of existing fossil fuel-fired EGUs, fossil fuel-fired electric utility steam generating units and stationary combustion turbines; (2) state-specific CO₂ goals reflecting the CO₂ emission performance rates; and (3) guidelines for the development, submittal and implementation of state plans that establish emission standards or other measures to implement the CO₂ emission performance rates, which may be accomplished by meeting the state goals. This final rule will continue progress already under way in the U.S. to reduce CO₂ emissions from the utility power sector.⁸

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (42 USC 17001) includes several key provisions that will increase energy efficiency and the availability of renewable energy, which will reduce greenhouse gas emissions as a result. First, the Act sets a Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022. Second, it increased Corporate Average Fuel Economy (CAFE) Standards to require a minimum average fuel economy of 35 miles per gallon for the combined fleet of cars and light trucks by 2020. Third, the Act includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.⁹

Greenhouse Gas Reporting Program (GHGRP)

The EPA adopted the GHGRP (40 CFR Part 98), a mandatory GHG reporting rule in September 2009. The rule requires suppliers of fossil fuels or entities that emit industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to the EPA beginning in 2011 (covering the 2010 calendar year emission). Vehicle and engine manufacturers were required to begin reporting GHG emissions for model year 2011. In January 2012, EPA made the first year of GHGRP reporting data available to the public through its interactive Data Publication Tool, called Facility Level Information on Greenhouse gases Tool (FLIGHT), EPA will continue to update the tool and release additional data each reporting year.¹⁰

⁷ The White House. Accessed 2 September 2015. *Climate Change and President Obama's Action Plan*. Available at: <https://www.whitehouse.gov/climate-change>

⁸ Environmental Protection Agency. 3 August 2015. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*. Available at: <http://www2.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule.pdf>

⁹ Environmental Protection Agency. Accessed 14 October 2015. *Summary of the Energy Independence and Security Act*. Available at: <http://www2.epa.gov/laws-regulations/summary-energy-independence-and-security-act>

¹⁰ Environmental Protection Agency. Accessed 14 October 2015. *Greenhouse Gas Reporting Program*. Available at: <http://www2.epa.gov/ghgreporting>

National Program to Improve Fuel Economy and Reduce GHGs

On September 15, 2009, the National Highway Traffic Safety Administration (NHTSA) and EPA announced a proposed joint rule that would explicitly tie fuel economy to GHG emissions reductions requirements. The proposed new CAFE Standards would cover automobiles for model years 2012 through 2016, and would require passenger cars and light trucks to meet a combined, per mile, carbon dioxide emissions level. It is estimated that by 2016, this GHG emissions limit could equate to an overall light-duty vehicle fleet average fuel economy of as much as 35.5 miles per gallon. The proposed standards would require model year 2016 vehicles to meet an estimated combined average emission level of 250 grams of carbon dioxide per mile under EPA's GHG program. On November 16, 2011, EPA and NHTSA issued a joint proposal to extend the national program of harmonized GHG and fuel economy standards to model year 2017 through 2025 passenger vehicles. In August 2012, President Obama finalized standards that will increase fuel economy to the equivalent of 54.5 mpg for cars and light-duty trucks by Model Year 2025.

Heavy-Duty National Program

The Heavy-Duty National Program was adopted on August 9, 2011, to establish the first fuel efficiency requirements for medium- and heavy-duty vehicles beginning with the model year 2014.

Proposed Rulemaking: Phase 2 Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles

As of June 2015, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) are jointly proposing a national program that would establish the next phase of GHG emissions and fuel efficiency standards for medium- and heavy-duty vehicles. The Phase 2 program significantly reduces carbon emissions and improves the fuel efficiency of heavy-duty vehicles, helping to address the challenges of global climate change and energy security. Phase 2 would save the heavy duty vehicle industry billions of dollars' worth of fuel, reduce the cost of transporting goods, cut fuel consumption, and reduce GHG emissions by 1 billion metric tons. Fuel consumption of tractor trailers alone could decrease by 24 percent. The proposed Phase 2 standards, which begin in the model year 2021 (model year 2018 for trailers and 2021 for NHTSA's trailer standards) and culminate in standards for model year 2027, are the product of a comprehensive assessment of existing and advanced technologies and extensive stakeholder outreach.¹¹

President Obama's Climate Action Plan

On June 25, 2013, President Obama issued a Climate Action Plan. The three main goals are to cut carbon pollution, prepare the U.S. for the impacts of climate change, and lead international efforts to combat global climate change and prepare for its impacts. President Obama plans to cut carbon pollution by directing the EPA to complete carbon pollution standards in the power sector. This will reduce emissions from power plants and encourage renewable energy development. Other strategies to combat climate change are increasing energy efficiency, stricter vehicle and fuel standards,

¹¹ Environmental Protection Agency. June 2015. *Cutting Carbon Pollution, Improving Fuel Efficiency, Saving Money, and Supporting Innovation for Trucks*. Available at: <http://www3.epa.gov/otaq/climate/documents/420f15900.pdf>

preserving forests as climate sinks, reducing energy waste, combating short-lived climate pollutants, mobilizing climate finance, and leading international negotiations on climate change.¹²

Federal Highway Administration's Climate Change and Extreme Weather Vulnerability Assessment Framework

Published in December 2012, the Climate Change and Extreme Weather Vulnerability Assessment Framework is a guidance document for transportation agencies to assess their vulnerability to climate change and extreme weather events. Objectives for a vulnerability assessment may include siting new assets in areas less vulnerable to climate change, educating staff regarding overall climate risks to the agency's transportation system, or informing the development of adaptation strategies. Based on these objectives, an agency can then select and characterize relevant assets and identify climate variables for study. The vulnerability assessment is an iterative process; information gathered on assets may inform climate information needs and vice versa.¹³

Executive Order 13693, Planning for Federal Sustainability in the Next Decade

Published June 10, 2015, Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade*, revokes multiple prior EOs and memorandum including EO 13423 and EO 13514. The new EO outlines forward-looking goals for federal agencies in the area of energy, climate change, water use, vehicle fleets, construction, and acquisition. The goal is to maintain federal leadership in sustainability and GHG emission reductions. Federal agencies shall, where life-cycle cost-effective, beginning in FY 2016:¹⁴

- Reduce agency building energy intensity as measured in Btu/ft² by 2.5 percent annually through FY 2025
- Improve data center energy efficiency at agency buildings
- Ensure a minimum percentage of total building electric and thermal energy shall be from clean energy sources
- Improve agency water use efficiency and management (including stormwater management)
- Improve agency fleet and vehicle efficiency and management by achieving minimum percentage GHG emission reductions

¹² The White House. June 2013. *The President's Climate Action Plan*. Available at: <https://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>

¹³ Federal Highway Administration. December 2012. *Climate change and extreme weather vulnerability assessment framework*. Available at: http://www.fhwa.dot.gov/environment/climate_change/adaptation/publications_and_tools/vulnerability_assessment_framework/fhwahep13005.pdf

¹⁴ Fed Center. 10 July 2015. *EO 13693*. Available at: <https://www.fedcenter.gov/programs/eo13693/>

State

Global Warming Solutions Act of 2006 (Núñez)

In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as AB 32 (Núñez, Chapter 488, Statutes of 2006), into law. AB 32 focuses on reducing GHG emissions in California and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap; institute a schedule to meet the cap; implement regulations to reduce statewide GHG emissions from stationary sources; and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. SB 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the state.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.¹⁵ On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing PFCs from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexafluoride emission from the non-electricity sector. CARB has determined that the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 MMTCO_{2e}. The 2020 target reductions are currently estimated to be 174 MMTCO_{2e}.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the Climate Action Team (CAT) and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, and reduce oil dependency. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable electricity standard of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;

¹⁵ California Air Resources Board. 20 April 2007. *Proposed Early Action Measures to Mitigate Climate Change in California*.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and Adopting and implementing measures to reduce transportation sector emissions, including California's.

CARB has also developed the GHG mandatory reporting regulation, which required reporting beginning on January 1, 2008, pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 MTCO₂ per year. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 MTCO₂ per year make up 94 percent of the point source CO₂ emissions in California.

Executive Order S-3-05 GHG Reduction Targets (2005)

Pursuant to AB 32, on June 1, 2005, EO S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The EO establishes state GHG emission targets of 1990 levels by 2020 (the same as AB 32) and 80 percent below 1990 levels by 2050.¹⁶ It calls for the Secretary of Cal/EPA to be responsible for coordination of state agencies and progress reporting. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency.¹⁷

In response to the EO, the Secretary of the Cal/EPA created the CAT. California's CAT originated as a coordinating council organized by the Secretary for Environmental Protection. It included the Secretaries of the Natural Resources Agency and the Department of Food and Agriculture and the Chairs of the CARB, California Energy Commission, and Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in the state. The council was given formal recognition in EO S-3-05 and became the CAT.

The original mandate for the CAT was to develop proposed measures to meet the emission reduction targets set forth in the executive order. The CAT has since expanded and currently has members from 18 state agencies and departments. The CAT also has 10 working groups that coordinate policies among their members. The working groups and their major areas of focus are:

- Agriculture: Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change
- Biodiversity: Designing policies to protect species and natural habitats from the effects of climate change

¹⁶ CEQA review related to the EO is currently being considered before the California Supreme Court in *Cleveland National Forest Association et al v. San Diego Association of Governments*, 231 Cal.App. 4th 1056. Considering this pending litigation, and to fulfill the related CEQA requirements for the PEIR to serve as a full-disclosure document, EO S-03-05 and B-30-15 have been included in this regulatory framework, and the PEIR addresses consistency of the RTP/SCS in relation to the GHG reduction targets set forth under such executive orders.

¹⁷ California Energy Commission. May 2011. *California's Energy Future – The View to 2050*.

- Energy: Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation
- Forestry: Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols
- Land Use and Infrastructure: Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions
- Oceans and Coastal: Evaluating the effects sea level rise and changes in coastal storm patterns on human and natural systems in California
- Public Health: Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions
- Research: Coordinating research concerning impacts of and responses to climate change in California
- State Government: Evaluating and implementing strategies to reduce GHG emissions resulting from state government operations
- Water: Reducing GHG impacts associated with the state's water systems and exploring strategies to protect water distribution and flood protection infrastructure

The CAT is responsible for preparing reports that summarize the state's progress in reducing GHG emissions. The most recent CAT Report was published in December 2010. The CAT Report discusses mitigation and adaptation strategies, state research programs, policy development, and future efforts.

First Update to the Climate Change Scoping Plan (May 2014)

This First Update to California's Climate Change Scoping Plan (Update) was developed by the CARB in collaboration with the Climate Action Team and reflects the input and expertise of a range of state and local government agencies. The Update reflects public input and recommendations from business, environmental, environmental justice, and community-based organizations provided in response to the release of prior drafts of the Update, a Discussion Draft in October 2013 and a draft Proposed Update in February 2014.

This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The First Update includes recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050 and sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050. The focus areas include energy, transportation, agriculture, water, waste management, and natural and working lands.¹⁸ With respect to the transportation sector, California has outlined several steps in the State's ZEV Action Plan to further support the market and accelerate its growth. Committed implementation of the actions described in the plan will help meet Governor Brown's 2012 Executive Order (EO) B-16-2012, which—in addition to establishing a more specific 2050 GHG target for the transportation sector of 80 percent from 1990 levels—called for 1.5 million ZEVs on California's roadways by 2025.

¹⁸ California Air Resources Board. May 2014. *First Update to the Climate Change Scoping Plan*. Available at: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf

Achieving such an aggressive 2050 target will require innovation and unprecedented advancements in energy demand and supply.¹⁹ Emissions from 2020 to 2050 will have to decline at more than twice the rate of that which is needed to reach the 2020 statewide emissions limit. In addition to our climate objectives, California also must meet federal clean air standards. Emissions of criteria air pollutants, including ozone precursors (primarily oxides of nitrogen, or NOx) and particulate matter, must be reduced by, a currently estimated, 90 percent by 2032 to comply with federal air quality standards. The scope and scale of emission reductions necessary to improve air quality is similar to that needed to meet long-term climate targets. Achieving both objectives will align programs and investments to leverage limited resources for maximum benefit.

Sustainable Communities and Climate Protection Act of 2008 (SB 375, Chapter 728, Statutes of 2008)

The Sustainable Communities and Climate Protection Act of 2008 SB 375 (Steinberg, Chapter 728, Statutes of 2008), adopted in September 30, 2008, provides an additional means for achieving AB 32 GHG emissions reduction goals. As part of the State's overall strategy to reduce GHG emissions as set forth by Executive Orders S-03-05 and B-30-15 and AB 52, SB 375 seeks to coordinate land use strategies with transportation planning. By coordinating these planning efforts, it is envisioned that vehicle congestion and travel can be reduced resulting in a corresponding reduction in passenger vehicle emissions. SB 375 directed CARB to set regional targets to reduce emissions; regional plans are required to identify how they will meet these targets.

SB 375 has three major components:

- Using the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals.
- Offering streamlined environmental review opportunities for eligible projects, should project proponents decide to pursue.
- Coordinating the Regional Housing Needs Allocation Assessment (RHNA) process with the regional transportation process while maintaining local authority over land use decisions.

An SCS is a required component of the RTP. The SCS outlines certain land use growth strategies that provide for more integrated land use and transportation planning, maximizes transportation investments, strives to reduce emissions and, if feasible, and helps meet CARB's targets for the region. An alternative planning strategy (APS) must be prepared if the SCS is unable to reduce emissions and achieve the emissions reduction targets established by CARB. EO B-16-2012, described further below, can help achieve these emissions reduction targets by encouraging zero emission vehicles (ZEVs) and related infrastructure.

SB 375 provides that the SCS developed as part of the RTP does not regulate the use of land or dictate local land use policies, and further expressly provides that a city's or county's land use policies and regulations, including its general plan, are not required to be consistent with the SCS. Rather, SB 375 is intended to provide a regional policy foundation that local government may build upon, if they so

¹⁹ California Air Resources Board. May 2014. *First Update to the Climate Change Scoping Plan*. Available at: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf

choose. CARB set the following reduction targets for SCAG: reduce per capita 8 percent of GHG emissions below 2005 levels by 2020 and 13 percent below 2005 levels by 2035.

Contractual Assessments: Energy Efficient Improvements

Contractual Assessments: Energy Efficient Improvements (AB 811, Chapter 159, Statutes of 2008) authorizes California cities and counties to designate districts within which willing property owners may enter into contractual assessments to finance the installation of renewable energy generation and energy efficiency improvements that are permanently fixed to the property.

Clean Car Standards (Assembly Bill 1493)

On September 24, 2009, the ARB adopted Assembly Bill 1493, which makes amendments to the Clean Car Standards (Chapter 200, Statutes of 2002), also known as the “Pavley” regulations that require reductions in GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California’s commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. The Clean Car Standards required CARB to develop and adopt standards for vehicle manufacturers to reduce GHG emissions coming from passenger vehicles and light-duty trucks at a “maximum feasible and cost effective reduction” by January 1, 2005. Pavley I took effect for model years starting in 2009 to 2016; and Pavley II, which is now referred to as “LEV (Low Emission Vehicle) III GHG,” will cover 2017 to 2025. Fleet average emission standards would reach 22 percent reduction by 2012 and 30 percent by 2016.²⁰

As of January 2012, CARB adopted the Advanced Clean Cars program to extend AB 1493 through model years 2017 to 2025. This program will promote all types of clean fuel technologies such as plug-in hybrids, battery electric vehicles, CNG vehicles, and hydrogen powered vehicles while reducing smog and saving consumers’ money in fuel costs. Fuel savings may be as up to 25 percent by 2025.²¹

Renewable Energy: California Renewables Portfolio Standard Program

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California’s Renewables Portfolios Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities (IOUs), electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. On September 12, 2002, then-Governor Gray Davis signed SB 1078. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

In November 2008, then-Governor Arnold Schwarzenegger signed EO S-14-08, which expands the state’s RPS to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger

²⁰ California Air Resources Board. 6 May 2013. *Clean Car Standards – Pavley, Assembly Bill 1493*. Available at: <http://www.arb.ca.gov/cc/ccms/ccms.htm>

²¹ California Air Resources Board. Accessed 19 July 2015. *California’s Advanced Clean Car Program*. Available at: http://www.arb.ca.gov/msprog/consumer_info/advanced_clean_cars/consumer_acc.htm

continued California's commitment to the RPS by signing EO S-21-09, which directs the CARB under its AB 32 authority to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020.

The 33 percent by 2020 goal was codified in April 2011 with SB X1-2, which was signed by Governor Edmund G. Brown, Jr. This new RPS preempts the CARB 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state, including publicly owned utilities (POUs), IOUs, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013 and 25 percent by the end of 2016, with the 33 percent requirement being met by the end of 2020.

Greenhouse Gases: Emissions Reduction (SB 862)

In June 2014, SB 862 (Chapter 36, Statutes of 2014) established long-term funding programs from the Cap and Trade program for transit, sustainable communities and affordable housing, and high speed rail. SB 862 allocates 60 percent of ongoing Cap and Trade revenues, beginning in 2015–2016, to these programs. The remaining 40 percent is to be determined by future legislatures.²² A minimum of 25 percent of Cap and Trade dollars must go to projects that provide benefits to disadvantaged communities, and a minimum of 10 percent must go to projects located within those disadvantaged communities. In addition, this bill established the CalRecycle Greenhouse Gas Reduction Revolving Loan Program and Fund²³

Clean Energy and Pollution Reduction Act of 2015

Clean Energy and Pollution Reduction Act of 2015, Senate Bill (SB) 350 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 will (1) increase the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) require the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provide for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) require the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.²⁴

²² California Transit Association. 17 June 2014. *Overview of 2014 Cap and Trade Legislation and Opportunities for Public Transit: Implementing 2014-15 Appropriations and a Long-Term Cap And Trade Funding Program*. Available at: <http://www.calcog.org/DocumentCenter/View/313>

²³ California Legislative Information. Accessed 25 August 2015. *SB-862 Greenhouse Gases: Emission Reduction*. Available at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB862

²⁴ California Legislative Information. Accessed 14 October 2015. *SB-350 Clean Energy and Pollution Reduction Act of 2015*. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350

Tire Pressure Regulation of 2010 (17 CCR Section 95550)

CARB promulgated this regulation to reduce GHG emissions from vehicles operating with under inflated tires by inflating them to the recommended tire pressure rating. Automotive service providers must meet the following requirements by September 1, 2010: check and inflate each vehicle's tires to the recommended tire pressure rating, indicate on the vehicle service invoice that a tire inflation service was completed and the tire pressure measurements after the services were performed, and perform the tire pressure service using a tire pressure gauge with a total permissible error no greater than ± 2 pounds per square inch (psi). Vehicle service invoices must be kept for a minimum of three years.²⁵

California Cap and Trade Program

Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is one of several strategies that California uses to reduce greenhouse gas emissions. CARB adopted the California Cap and Trade Program final regulations on October 20, 2011, and adopted amended regulations on September 12, 2012, with the first auction for GHG allowances on November 14, 2012.²⁶ Funds received from the program are deposited into the Greenhouse Gas Reduction Fund and appropriated by the Legislature. Greenhouse Gas Reduction Funds are administered by state and local agencies for a variety of greenhouse-gas cutting programs, including energy efficiency, public transit, low-carbon transportation and affordable housing.²⁷ On June 20, 2014, Governor Brown signed the FY 2014–2015 California State Budget, which included a cap and trade expenditure plan for cap-and-trade revenues in the Greenhouse Gas Reduction Fund. The Cap and Trade Program is a market-based mechanism to reduce GHG emissions in a cost-effective and economically efficient manner. California is the first multisector cap and trade program in North America following the northeast Regional Greenhouse Gas Initiative (RGGI) and the European Union Emission Trading Scheme (EU-ETS). It sets a GHG emissions limit that will decrease by 2 percent each year until 2015, and then 3 percent from 2015 to 2020 to achieve the goals in AB 32. The program initially applies to large electric power plants and large industrial plants, but will include fuel distributors by 2015. By 2015, these rules will encompass 85 percent of all of California's GHG emissions.

Safeguarding California Plan

Published in July 2014, the Safeguarding California Plan is a comprehensive strategy to protect the state's environment, economy, and people from climate threats. It addresses nine broad categories where California is particularly at risk: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, and transportation. The Plan identifies sector specific actions for California's climate adaptation initiatives to be implemented by state agencies.²⁸

²⁵ California Air Resources Board. Accessed 19 July 2015. *Regulation to Reduce Greenhouse Gas Emissions from Vehicles Operating With Under Inflated Tires*. Available at: <http://www.arb.ca.gov/regact/2009/tirepres09/tirefinalreg.pdf>

²⁶ California Air Resources Board. *Cap and Trade Program*. Accessed October 15, 2015. Available at: <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>

²⁷ CalEPA. Accessed 9 February 2015. *Greenhouse Gas-Reduction Investments to Benefit Disadvantaged Communities*. Available at: <http://www.calepa.ca.gov/EnvJustice/GHGInvest/>

²⁸ California Air Resources Board. 2015. *FAQ about EO B-30-15: 2030 Carbon Target and Adaptation*. Available at: http://www.arb.ca.gov/newsrel/2030_carbon_target_adaptation_faq.pdf

Smartway/Phase I Heavy-Duty Vehicle Greenhouse Gas Regulation

Pursuant to the California Clean Air Act, this regulation applies to GHG emissions from heavy-duty trucks and engines sold in California effective March 21, 2011. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the recently adopted U.S. EPA rule for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer Greenhouse Gas Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation.²⁹

Executive Order S-20-06

On October 17, 2006, Governor Arnold Schwarzenegger signed EO S-20-06, which calls for continued efforts and coordination among state agencies to implement GHG emission reduction policies, AB 32, and the Health and Safety Code (Division 25.5) through a market-based compliance program. In addition, EO S-20-06 requires the development of GHG reporting and reduction protocols and a multistate registry through joint efforts among CARB, California Environmental Protection Agency (Cal/EPA), and the California Climate Action Registry (CCAR). EO S-20-06 directs the Secretary for Environmental Protection to coordinate with the CAT to plan incentives for market-based mechanisms that have the potential of reducing GHG emissions.

Executive Order S-01-07 Low Carbon Fuel Standard

On January 18, 2007, EO S-1-07 was issued, requiring a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. Regulatory proceedings and implementation of the Low Carbon Fuel Standard have been directed to the CARB. The Low Carbon Fuel Standard has been identified by CARB as a discrete early action item in the Adopted Climate Change Scoping Plan. CARB expects the Low Carbon Fuel Standard to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Climate Change Scoping Plan work in tandem with one another. To avoid the potential for double-counting emission reductions associated with AB 1493, the Climate Change Scoping Plan has modified the aggregate reduction expected from the Low Carbon Fuel Standard to 9.1 percent.

Executive Order S-13-08

EO S-13-08, signed on November 14, 2008, directs California to develop methods for adapting to climate change impacts through preparation of a statewide plan. In response to this order, the California Natural Resources Agency coordinated with 10 state agencies, multiple scientists, a consulting team, and stakeholders to develop the first statewide, multisector adaptation strategy in the country. The resulting report, 2009 California Climate Adaptation Strategy, summarizes the best-known science to assess the vulnerability of the state to climate change impacts, and outlines possible solutions that can be implemented within and across state agencies to promote resiliency. This strategy is the first step in an evolving process to reduce California's vulnerability to climate change impacts.

²⁹ California Air Resources Board. 9 December 2014. *Phase 1 GHG*. Available at: <http://www.arb.ca.gov/msprog/onroad/phase1ghg/phase1ghg.htm>

Adaptation refers to efforts that prepare the state to respond to the impacts of climate change: adjustments in natural or human systems to actual or expected climate changes to minimize harm or take advantage of beneficial opportunities. California's ability to manage its climate risks through adaptation depends on a number of critical factors. These include its baseline and projected economic resources, technology, infrastructure, institutional support and effective governance, public awareness, access to the best available scientific information, sustainably managed natural resources, and equity in access to these resources.

Executive Order B-16-2012

In March 23, 2012, Governor Brown issued EO B-16-2012 to encourage ZEVs and related infrastructure. It orders the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks in regard to ZEVs. By 2020, the state's ZEV infrastructure should support up to one million vehicles. By 2025, EO B-16-2012 aims to put over 1.5 million ZEVs on California roads and displace at least 1.5 billion gallons of petroleum. The EO also directs state government to begin purchasing ZEVs. In 2015, 10 percent of state departments' light-duty fleet purchases must be ZEVs, climbing to 25 percent of light duty purchases by 2020. EO B-16-2012 sets a target for 2050 to reduce GHG emissions in the transportation sector by 80 percent below 1990 levels.³⁰

Zero Emission Vehicle Action Plan

Pursuant to EO B-16-2012, in February 2013, the Governor's Interagency Working Group on Zero Emission Vehicles published an Action Plan.³¹ In compliance with B-16-2012, the ZEV Action Plan lays out specific strategies and actions to meet the milestones of the executive order. The four main goals of the state government to advance ZEVs are (1) complete needed infrastructure and planning, (2) expand consumer awareness and demand, (3) transform fleets, and (4) grow jobs and investment in the private sector.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued EO B-30-15, stating a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The EO establishes GHG emissions reduction targets to reduce emissions to 80 percent below 1990 levels by 2050 and sets an interim target of emissions reductions for 2030 as being necessary to guide regulatory policy and investments in California and put California on the most cost-effective path for long-term emissions reductions. The EO orders "all State agencies with jurisdiction over sources of [GHG] emissions [to] ... implement measures, pursuant to statutory authority, to achieve reductions of [GHG] emissions to meet the 2030 and 2050 [GHG] emissions reductions targets." It directs CARB to "update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent." It directs the Natural Resources Agency to update "Safeguarding California" (the state's climate adaptation strategy)

³⁰ Office of Governor Edmund G. Brown Jr. 23 March 2012. *Executive Order B-16-2012*. Available at: <http://gov.ca.gov/news.php?id=17472>

³¹ Governor's Interagency Working Group on Zero-Emission Vehicles. February 2013. *ZEV Action Plan*. Available at: [http://opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_\(02-13\).pdf](http://opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_(02-13).pdf)

every three years, as specified; directs state agencies to “take climate change into account in their planning and investment decisions, and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives”; and orders the “state’s Five-Year Infrastructure Plan [to] take current and future climate change impacts into account in all infrastructure projects.” Among its other directives, the EO provides that “State agencies’ planning and investment shall be guided by the ... principle that priority should be given to actions that both build climate preparedness and reduce GHG emissions.”

Proposed Amendments to California Global Warming Solutions Act of 2006: Emission Limit (Senate Bill 32)

Pursuant to SB 32, if approved, this bill would codify the 2030 target in the recent Executive Order B-30-15 (40% below 1990 levels by 2030). The bill would authorize the state board to adopt an interim greenhouse gas emissions level target to be achieved by 2030. The bill also would state the intent of the Legislature for the Legislature and appropriate agencies to adopt complementary policies that ensure the long-term emissions reductions advance specified criteria.

As of September 11, 2015, SB 32 did not pass the 2015-2016 regular state legislative session. SB 32 passed in the State Senate and initially failed in the Assembly on September 4, 2015, and September 8, 2015, respectively. However, it received sufficient votes for reconsideration on September 9, 2015, and was amended and referred to the Committee on Natural Resources one day later on September 10, 2015. As a two-year bill, SB 32 could be considered again in the 2016 regular session.³²

California Climate Action Registry (2001)

Established in 2001, the CCAR is a private nonprofit organization originally formed by the State of California.³³ CCAR serves as a voluntary GHG registry and led efforts to develop credible, accurate, and consistent GHG reporting standards and tools for businesses, government agencies, and nonprofit organizations to measure, monitor, and reduce GHG emissions. For instance, the CCAR General Reporting Protocol, Version 3.1, dated January 2009, provides the principles, approach, methodology, and procedures required for voluntary GHG emissions reporting by businesses, government agencies, and nonprofit organizations.

California Climate Adaptation Planning Guide

On July 2012, the California Emergency Management Agency and California Natural Resources Agency published the California Adaptation Planning Guide (APG). The APG is a set of four complementary documents.

³² California Legislative Information. Accessed 14 September 2015. *SB-32 California Global Warming Solutions Act of 2006: emissions limit (2015–2016)*. Available at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32

³³ The Climate Registry. Accessed 15 October 2015. *About Us*. Available at: <http://www.theclimateregistry.org/who-we-are/about-us/>

- APG: Planning for Adaptive Communities—Presents the basis for climate change adaptation planning and introduces a step-by-step process for local and regional climate vulnerability assessment and adaptation strategy development. All communities should start with this document.
- APG: Defining Local and Regional Impacts—This supplemental document provides a more in-depth understanding of how climate change can affect a community. Seven “impact sectors” are included to support communities conducting a climate vulnerability assessment.
- APG: Understanding Regional Characteristics—The impact of climate change varies across the state. This supplemental document identifies climate impact regions, including their environmental and socioeconomic characteristics.
- APG: Identifying Adaptation Strategies—This supplemental document explores potential adaptation strategies that communities can use to meet adaptation needs. Adaptation strategies are categorized into the same impact sectors used in the APG: Defining Local and Regional Impacts document.

The APG provides guidance to support communities in addressing the unavoidable consequences of climate change. The APG introduces the basis for climate change adaptation planning and details a step-by-step process for local and regional climate vulnerability assessment and adaptation strategy development. The guide was developed to allow flexibility in the commitment of time, money, and scope.³⁴

California’s Flood Future Report

In November 2013, the California Department of Water Resources and the U.S. Army Corps of Engineers developed *California’s Flood Future: Recommendations for Managing the State’s Flood Risk*. This document identifies the statewide exposure to flood risk and presents seven key recommendations to improve flood management. Consistent with the Integrated Water Management (IWM) approach, the recommendations include:³⁵

- Tools
 - Risk Assessments: Conduct regional flood risk assessments to understand statewide flood risk.
 - Flood Risk Awareness: Increase public and policymaker awareness about flood risks to facilitate informed decisions.
 - Flood Readiness: Increase support for flood emergency preparedness, response, and recovery programs to reduce flood impacts.

³⁴ California Emergency Management Agency and California Natural Resources Agency. Accessed 9 September 2015. *California adaptation planning guide*. Available at: http://resources.ca.gov/docs/climate/01APG_Planning_for_Adaptive_Communities.pdf

³⁵ California Department of Water Resources. 31 December 2014. *California’s Flood Future Report*. Available at: <http://www.water.ca.gov/sfmp/flood-future-report.cfm>

- Plans
 - Land Use Planning: Encourage land use planning practices that reduce the consequences of flooding.
 - Regional, Systemwide, and Statewide Planning: Implement flood management from regional, systemwide, and statewide perspectives to provide multiple resources.
- Actions
 - Increase Agency Collaboration: Increase collaboration among public agencies to improve flood management planning, policies, and investments. Actions also include the infrastructure improvements and other innovations conducted flood and water management agencies.
 - Establish Financial Investment Priorities: Public agencies at every level should prioritize short- and long-term flood management efforts, in accordance with a sound investment strategy based on sustainable funding sources.

California Coastal Commission Sea Level Rise Policy Guidance

On August 12, 2015, the California Coastal Commission adopted the Recommended Final Draft of the Sea Level Rise Policy Guidance as interpretive guidance to guide people on how to comply with PRC 30620 that specifies development guidelines within the coastal zone. It provides a planning process framework for addressing sea level rise and adaptation planning in Local Coastal Programs and Coastal Development Permits. Decisions are rooted in the best available science with the goal of minimizing coastal hazards and protecting public access, recreation and sensitive coastal resources. This Guidance is part of a larger statewide climate strategy alongside the 2014 Safeguarding California Plan, EO B-30-15, EO S-13-08, State Hazard Mitigation Plan, and other climate work done by research organizations and state agencies.

Regional

SCAG Sustainability Planning Grant Program

Formerly known as the Compass Blueprint Grant Program, SCAG's Sustainability Program works actively with Southern California communities and stakeholders to create a dynamic regional growth vision based on the principles of mobility, livability, prosperity, and sustainability. The program's work focuses on implementing the region's Sustainable Communities Strategy, the state-mandated plan for reducing GHG emissions from cars and light trucks through integrated transportation, land use, housing and environmental planning.³⁶

South Coast Air Quality Management District (SCAQMD) Policies and Guidance

Policy on Global Warming and Stratospheric Ozone Depletion

SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to

³⁶ Southern California Association of Governments. Accessed 1 September 2015. *Sustainability*. Available at: <http://www.scag.ca.gov/programs/Pages/Programs/Sustainability.aspx>

the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.³⁷

Draft Guidance Regarding Interim CEQA GHG Significance Thresholds

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. In its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds.³⁸

SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing CEQA GHG significance thresholds. The working group is currently discussing multiple methodologies for determining project significance. These methodologies include categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets.

Counties

Los Angeles County

The Los Angeles County Office of Sustainability was created within the Internal Services Department by the Board of Supervisors in October 2009 to respond to legislation, regulation, and policy related to Climate Change and serve as a central hub to coordinate Energy Efficiency, Conservation and Sustainability Programs within the County, its facilities, and the region. The County Office of Sustainability develops and implements programs that impact and benefit the constituents of Los Angeles County, such as the Energy Upgrade California in Los Angeles County energy efficiency home improvement and rebate program, countywide Environmental Service Centers, the SolarMap LACounty.gov and Green.LACounty.gov websites, and the Los Angeles Regional Collaborative for Climate Action and Sustainability. In addition, the County Office of Sustainability is the lead in coordinating and implementing Energy and Environmental policy programs and activities by all County departments.

As of March 2015, Los Angeles County Board of Supervisors approved the first CCAP. The CCAP will be a roadmap to reduce GHGs in Los Angeles County by 11 percent by 2020. This target can be achieved through cool roofs, solar, tree canopies, and more active transportation and public transit use. The

³⁷ South Coast Air Quality Management District. November 2010. Draft Environmental Assessment. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2010/final-environmental-assessment-for-proposed-amended-rule-1415-and-proposed-rule-1415-1.pdf?sfvrsn=4>

³⁸ South Coast Air Quality Management District. Accessed August 2011. *Greenhouse gases (GHG) CEQA significance thresholds*. Available at: <http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html>

County of Los Angeles Department of Regional Planning will implement the CCAP and work to develop climate adaptation strategies beyond 2020.³⁹

Orange County

In early 2010, a joint committee with equal representation from the Orange County Council of Governments (COG) and the Orange County Transportation Authority (OCTA) was formed to develop the Orange County Sustainable Communities Strategy (SCS). The Orange County COG/OCTA SCS Joint Working Committee led overall efforts to develop a subregional Orange County SCS to meet the requirements of SB 375 and the mutual agreements with SCAG with a plan that all local jurisdictions in Orange County could support. As a result of this collaborative effort, the Orange County SCS was adopted unanimously by the OCTA and Orange County COG Boards of Directors in June of 2011. Orange County SCS utilizes the transportation system along with land use and Best Management Practices strategies to help the County to achieve the state-mandated emissions reduction targets.

Riverside County

Riverside County has created a Green Action Plan to establish a clear path to sustainability and GHG reduction. The Green Action Plan focuses on seven key areas: energy, GHG emissions, waste, urban design, urban nature, transportation, and water. The Energy section of the guidebook includes a goal to increase the use of non-GHG-emitting energy to 70 percent with at least 50 percent coming from renewable sources by 2020. The Plan has established a target to reduce GHG emissions by 7 percent below 1990 baseline and 15 percent below the baseline by 2020. The County aims to reduce waste by 75 percent by 2020 based on the 2007 per capita baseline. The Plan also provides incentives to increase green development and encourage the planting of at least 3,000 shade trees on private property and 1,000 trees in parks annually. For transportation, the Plan envisions a 15 percent decrease in vehicle miles traveled by 2015 based on the 2009 baseline. The waters section specifies a 20 percent water usage reduction by 2020 while increasing the use of recycled water by 30 percent by 2020 based on the 2008 baseline.⁴⁰

In September 2014, Western Riverside Council of Governments (WRCOG) published the Subregional Climate Action Plan. The major goals of the Climate Action Plan are to create local jobs, promote healthier communities, achieve energy self-sufficiency, enhance social equity, reduce emissions, improve air quality, protect natural systems, and save money. WRCOG aims to reduce GHG emissions to 15 percent below 2010 levels by 2020, and 49 percent below 2010 levels by 2035.⁴¹

San Bernardino County

Santa Bernardino County launched *Green County San Bernardino* in August 2007 to promote the use of environmentally friendly technologies and practices among business owners, developers, and residents in the County. All San Bernardino County cities are encouraged to join the Green Valley Initiatives to

³⁹ Climate Resolve. 26 March 2015. *Approved: LA County's Community Climate Action Plan*. Available at: <http://climateresolve.org/countyclimateactionplan/>

⁴⁰ Green Riverside. Accessed August 2011. *Green Action Plan*. Available at: <http://www.greenriverside.com/About-Green-Riverside-4/Green-Action-Plan-190>

⁴¹ Western Riverside Council of Governments. Accessed 25 August 2015. *Subregional Climate Action Plan*. Available at: http://www.wrcog.cog.ca.us/uploads/media_items/wrcog-climate-action-plan-final-draft-april-2014.original.pdf

pledge to address five or more policy areas that aim to reduce GHG emissions. The policy areas to select from are Green Building Program, Buy Green/Buy Local, Green Business Programs, Conservation and Recycling, Solar and Alternative Energy, Encourage Green Economic Development, Green Valley Land Use, and Green Valley Coordinators.⁴²

In March 2014, San Bernardino County released the final version of the San Bernardino County Greenhouse Gas Reduction Plan and Final EIR to be certified by the SANBAG Board of Directors. The plan is in accordance with AB 32 and other regional and general plans.⁴³

Ventura County

In April 2010, the County of Ventura General Services Agency (GSA) released an Energy Action Plan to minimize energy intensities in GSA-maintained buildings, improve operational energy and water efficiencies, reduce energy and water use, pursue LEED and Energy Star certifications, and educate GSA employees. As of April 2012, the County of Ventura released a Climate Protection Plan to reduce GHG emissions by 15 percent by 2020. The six action areas include climate protection leadership, countywide responsibility, facilities, vehicle (fleet) operations, employee commute, and expanded sustainability goals.⁴⁴

Cities

Many cities in the SCAG region have incorporated climate change and GHG policies into their planning and permitting programs. Many cities in the SCAG region have developed or are developing city-level Climate Action Plans, climate milestones, GHG reduction plans, and/or GHG inventories. Please refer to the Governor's Office of Planning and Research for a full list of California cities/counties that have taken climate change actions.⁴⁵

3.8.2 EXISTING CONDITIONS

GHGs are the result of both natural and human-influenced activities. Forest fires; decomposition; industrial processes; landfills; and consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human intervention, the earth maintains an approximate balance between the emission of GHGs into the atmosphere and the storage of GHGs in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have contributed to the rapid increase in atmospheric levels of GHGs over the last 150 years.

The primary effect of rising global concentrations of atmospheric GHG levels has been a rise in the average global tropospheric temperature of approximately 0.2 degree Celsius per decade, determined

⁴² San Bernardino County. Accessed August 2011. *Green Valley Initiative Cities*. Available at: http://www.sbcounty.gov/greencountysb/green_valley_initiative_cities.aspx

⁴³ San Bernardino Associated Governments. Accessed 19 July 2015. *Regional greenhouse gas reduction plan*. Available at: http://www.sanbag.ca.gov/planning2/plan_greenhouse.html

⁴⁴ Ventura County. Accessed 19 July 2015. *Working & living sustainably*. Available at: <http://www.ventura.org/sustain/for-community/climate-protection/>

⁴⁵ California Governor's Office of Planning and Research. Updated 17 June 2014. *California Jurisdictions addressing climate change*. Available at: http://www.opr.ca.gov/docs/California_Jurisdictions_Addressing_Climate_Change_PDF.pdf

from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide,⁴⁶ which would induce further changes in the global climate system during the current century. Adverse impacts from global climate change worldwide and in California may include, but may not be limited to:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures.⁴⁷
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.⁴⁸ Sea level in California has risen approximately 7 inches from 1900 to 2005, according to the National Climate Assessment.⁴⁹
- Changing weather patterns, including changes to precipitation, ocean acidification and warming, and wind patterns.⁵⁰
- Declining Sierra snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years.⁵¹
- Increasing the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas located in the Southern California area and the San Joaquin Valley by the end of the 21st century.⁵²
- Migrating of species to suitable habitats.
- Reducing of crop yields in the agricultural sector.
- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.⁵³
- Decreasing cold temperature extremes, increasing warm temperature extremes, increasing extreme high sea levels, and increasing number of heavy precipitation events in a number of regions.⁵⁴

⁴⁶ See, e.g., Environmental Protection Agency, Draft Endangerment Finding, 74 *Fed. Reg.* 18886, 18904 (April 24, 2009) ("cumulative emissions are responsible for the cumulative change in the stock of concentrations in the atmosphere"); see also 74 *Fed. Reg.* 66496, 66538 (same in Final Endangerment Finding).

⁴⁷ Environmental Protection Agency, Draft Endangerment Finding, 74 *Fed. Reg.* 18886, 18904 (April 24, 2009) ("cumulative emissions are responsible for the cumulative change in the stock of concentrations in the atmosphere"); see also 74 *Fed. Reg.* 66496, 66538 (same in Final Endangerment Finding).

⁴⁸ Intergovernmental Panel on Climate Change. 2007. *Climate change 2007*.

⁴⁹ California Air Resources Board. 2015. *FAQ about EO B-30-15: 2030 Carbon Target and Adaptation*. Available at: http://www.arb.ca.gov/newsrel/2030_carbon_target_adaptation_faq.pdf

⁵⁰ Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007*.

⁵¹ California Environmental Protection Agency, Climate Action Team. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

⁵² California Environmental Protection Agency, Climate Action Team. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

⁵³ California Environmental Protection Agency, Climate Action Team. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

⁵⁴ Intergovernmental Panel on Climate Change. 2014. *Climate Change 2014 Synthesis Report Summary for Policymakers*. Available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf

- Increasing frequency and severity of climate-related extremes including heat waves, droughts, floods, cyclones, and wildfires.⁵⁵

Scientific understanding of the fundamental processes responsible for global climate change has improved over the past decade, and predictive capabilities are advancing. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change; occurrence of extreme weather events; and effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Because of these uncertainties, there continues to be some debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it may not be possible to link specific development projects to future specific climate change impacts, though estimating project-specific impacts is possible.

Sources of GHG Emissions

Global

Global GHG emissions in 2012 were 43,286.2 MTCO_{2e}.⁵⁶ The top ten GHG emitters in the world contribute 72 percent of global GHG emissions, not including land use change and forestry. The top ten GHG emitters, in order from most polluting, are China, U.S., European Union, India, Russian Federation, Indonesia, Brazil, Japan, Canada, and Mexico. China contributed the most, accounting for approximately 25.4 percent (or 10,975.5 MTCO_{2e}) of the world's total, while the U.S. was the second largest contributor accounting for approximately 14.4 percent (6,235.1 MTCO_{2e}). Six of the top ten GHG emissions contributors are developing countries, which reflects a shift in the geopolitical landscape as developed countries used to dominate the top ten GHG emitters list. The energy sector accounts for more than 75 percent of total global GHG emissions, making it a primary focus in achieving reductions.⁵⁷

National

In 2013, the United States emitted 6,673 MTCO_{2e} (Figure 3.8.2-1, *United States: GHG Emissions by Sector, 2013*). Total U.S. GHG emissions have increased by 5.9 percent from 1990 to 2013 at an average annual rate of 0.3 percent since 1990. From 2012 to 2013, U.S. GHG emissions increased 2 percent because of increased coal consumption and decreased natural gas consumption in electricity generation. Other factors include increase in energy use for heating during the cool winter conditions, increase in industrial production and emissions, and increase in vehicle miles traveled and fuel use in transportation. However, the national GHG emissions level in 2013 was 9 percent below 2005 levels.⁵⁸

⁵⁵ Intergovernmental Panel on Climate Change. 2014. *Climate Change 2014 Synthesis Report Summary for Policymakers*. Available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf

⁵⁶ Infographic: What Do Your Country's Emissions Look Like? Accessed 23 June 2015. Available at: <http://www.wri.org/blog/2015/06/infographic-what-do-your-countrys-emissions-look>

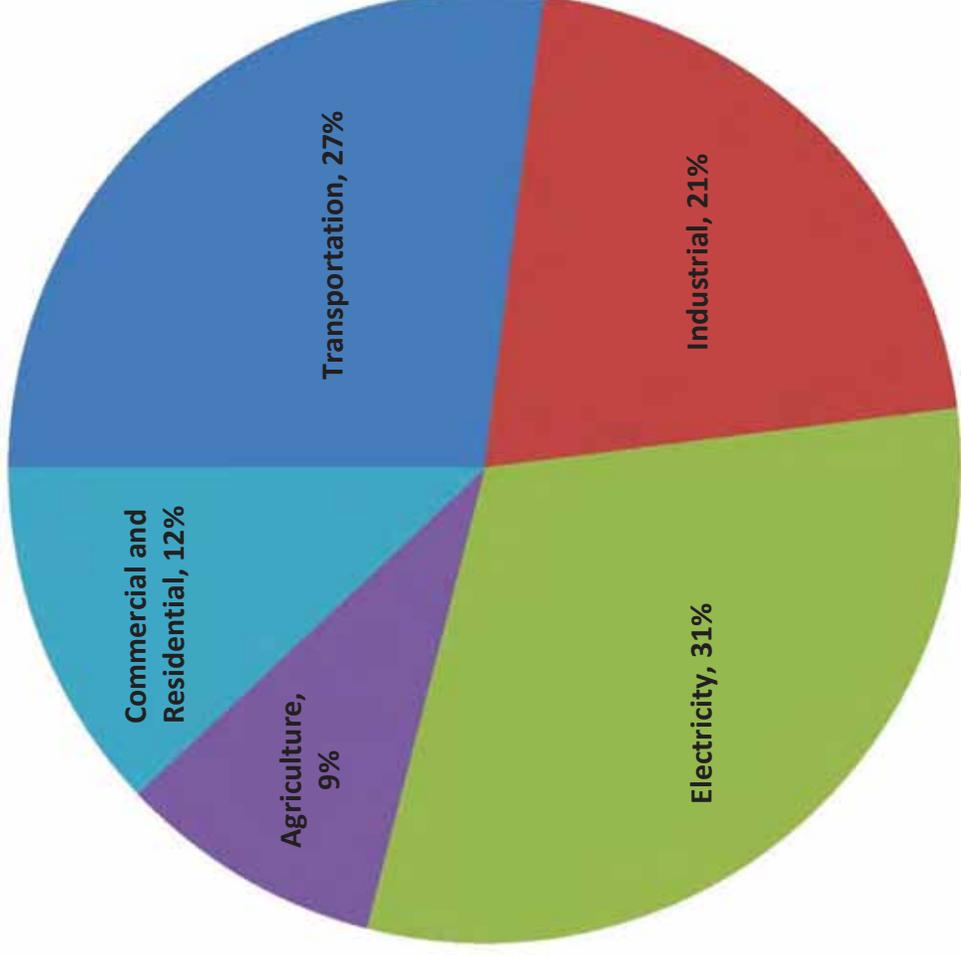
⁵⁷ Infographic: What Do Your Country's Emissions Look Like? Accessed 23 June 2015. Available at: <http://www.wri.org/blog/2015/06/infographic-what-do-your-countrys-emissions-look>

⁵⁸ U.S. Environmental Protection Agency. April 2015. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013*. Available at: <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Chapter-Executive-Summary.pdf>

Figure 3.8.2-1:

United States: GHG Emissions by Sector, 2013

Total Emissions: 6,673 MMT CO₂e



Note: Land use, land-use change, and forestry is a net sink and offsets approx. 13% of GHG emissions

In June 2013, President Obama announced the U.S. Climate Action Plan, which takes a three-pronged approach by cutting carbon pollution, preparing for the impacts of climate change, and leading international efforts to address global climate change. The Plan aims to reduce carbon pollution by focusing on setting emission standards for new and existing power plants, improving energy efficiency in vehicles and buildings, reducing energy waste, and investing in renewable energy projects. The Plan also includes climate adaptation strategies to address climate vulnerabilities, such as drought and wildfires, and increases resiliency in how we build our cities.

State of California

California Greenhouse Gas Inventory

The California Greenhouse Gas Inventory, maintained by the CARB, includes emissions from carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and nitrogen trifluoride (NF₃). Of the total 459 MMTCO_{2e} of GHG emissions in 2013, 84 percent were from CO₂. In 2013, the transportation sector and the industrial sector were the top two GHG emissions contributors, at 37 percent and 23 percent, respectively. Starting in 2009, the GHG Mandatory Reporting Program provided the statewide emissions from electricity generation and stationary industrial sources (Table 3.8.2-1, *California Greenhouse Gas Inventory for 2000–2013 by Economic Sector*).⁵⁹ In 2011, CARB partnered with the University of California, Berkeley, to develop new methodologies using land based data sets and remote sensing data to evaluate carbon stock changes in California. The covered lands include forests, woodlands, shrub lands, grasslands, and wetlands, but not urban or agricultural lands.⁶⁰

⁵⁹ California Air Resources Board. 30 June 2015. *California Greenhouse Gas Emission Inventory -2015 Edition*. Available at: <http://www.arb.ca.gov/cc/inventory/data/data.htm>

⁶⁰ California Air Resources Board. 6 May 2015. *California Greenhouse Gas Inventory - Forests and Other Lands*. Available at: <http://www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm>

**TABLE 3.8.2-1
CALIFORNIA GREENHOUSE GAS INVENTORY FOR 2000-2013 BY ECONOMIC SECTOR**

Sector	CO _{2e} Emissions (Million Metric Tons)													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Electricity (In state)	59	63	50	48	49	45	50	54	54	53	47	41	51	51
Electricity (Imports)	46	59	59	65	66	63	55	60	66	48	44	47	44	40
Transportation	178	179	186	186	189	192	192	192	181	175	174	171	171	173
Industrial	105	104	105	104	107	105	103	100	101	99	103	103	104	104
Commercial	15	15	17	16	17	17	18	18	19	20	22	22	22	23
Residential	32	31	31	31	32	30	31	31	31	31	32	33	31	32
Agriculture & forestry	32	33	34	35	34	35	36	36	36	35	35	36	36	36
Not specified	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total	469	485	483	486	495	488	486	493	490	462	456	455	461	459

SOURCE:

California Air Resources Board. Accessed 24 April 2015. *California Greenhouse Gas Inventory for 2000-2013 – by Sector and Activity*. Available at: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-13_20150424.pdf

In 2013, total California GHG emissions were 459 MMT of carbon dioxide equivalent (MMT CO_2e) (Figure 3.8.2-2, *California: GHG Emissions by Sector, 2013*). Total GHG emissions decreased by 1.5 million MMT CO_2e from 2012 to 2013. This is an overall decrease of 7 percent since peak levels in 2004. Per capita emissions in California have decreased by 14 percent from 2000 to 2013, going from 14 tonnes of CO_2e per person in the peak of 2001 to 12 tonnes of CO_2e per person in 2013.⁶¹ The GHG inventory additionally shows as GDP rises from 2000 to 2013, emissions per unit GDP, otherwise known as carbon intensity, has been declining. Carbon intensity has declined 23 percent since its 2001 peak.⁶²

For 2013, transportation makes up the largest portion at 37 percent of gross GHG emissions. Of the 173 MMT CO_2e emitted by transportation, 90 percent are from on-road sources including passenger vehicles and trucks. While population growth has increased the number of vehicles on the road, vehicles have been getting cleaner pursuant to AB 1493. The next largest emitting sectors are industrial and electricity generation, which contribute 23 percent and 20 percent, respectively, of the total GHG emissions.

In 2012, in-state electricity generation increased because of the closure of the San Onofre Nuclear Generating Station and lower hydropower generation as a result of California's drought. The lost zero-GHG generation was replaced by power in-state from natural gas powered generation plants. Although the drought and reduced availability of hydropower continued in 2013, in-state power generation has adapted by utilizing the more efficient combined-cycle power plants and continuing recent trends of greater use of renewable power. The closing of the last of the high-carbon-intensity petroleum coke power plants also reduced the emissions associated with power generation.⁶³

California ranks second in the United States in total GHG emissions behind Texas. However, from a per capita and per GDP standpoint, California has the 45th- and 46th-lowest emissions, respectively. On an international scale, California has the 20th-largest GHG emissions and the 38th-largest per capita emissions for year 2010.⁶⁴

Cap and Trade Program

The state-wide cap and trade expenditure plan allocated \$832 million dollars towards these programs that will help reduce GHG emissions, with set-asides for projects benefiting disadvantaged communities. The expenditure plan funds three main investment categories: (1) sustainable communities & clean transportation; (2) energy efficiency & clean energy; and (3) natural resources & waste diversion.⁶⁵

⁶¹ California Air Resources Board. 16 June 2015. *California Greenhouse Gas Emissions for 2000 to 2013 – Trend of Emissions and Other Indicators*. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_trends_00-13%20_10sep2015.pdf

⁶² California Air Resources Board. 16 June 2015. *California Greenhouse Gas Emissions for 2000 to 2013 – Trend of Emissions and Other Indicators*. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_trends_00-13%20_10sep2015.pdf

⁶³ California Air Resources Board. 16 June 2015. *California greenhouse gas emissions for 2000 to 2013 – trends of emissions and other indicators*. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_trends_00-13.pdf

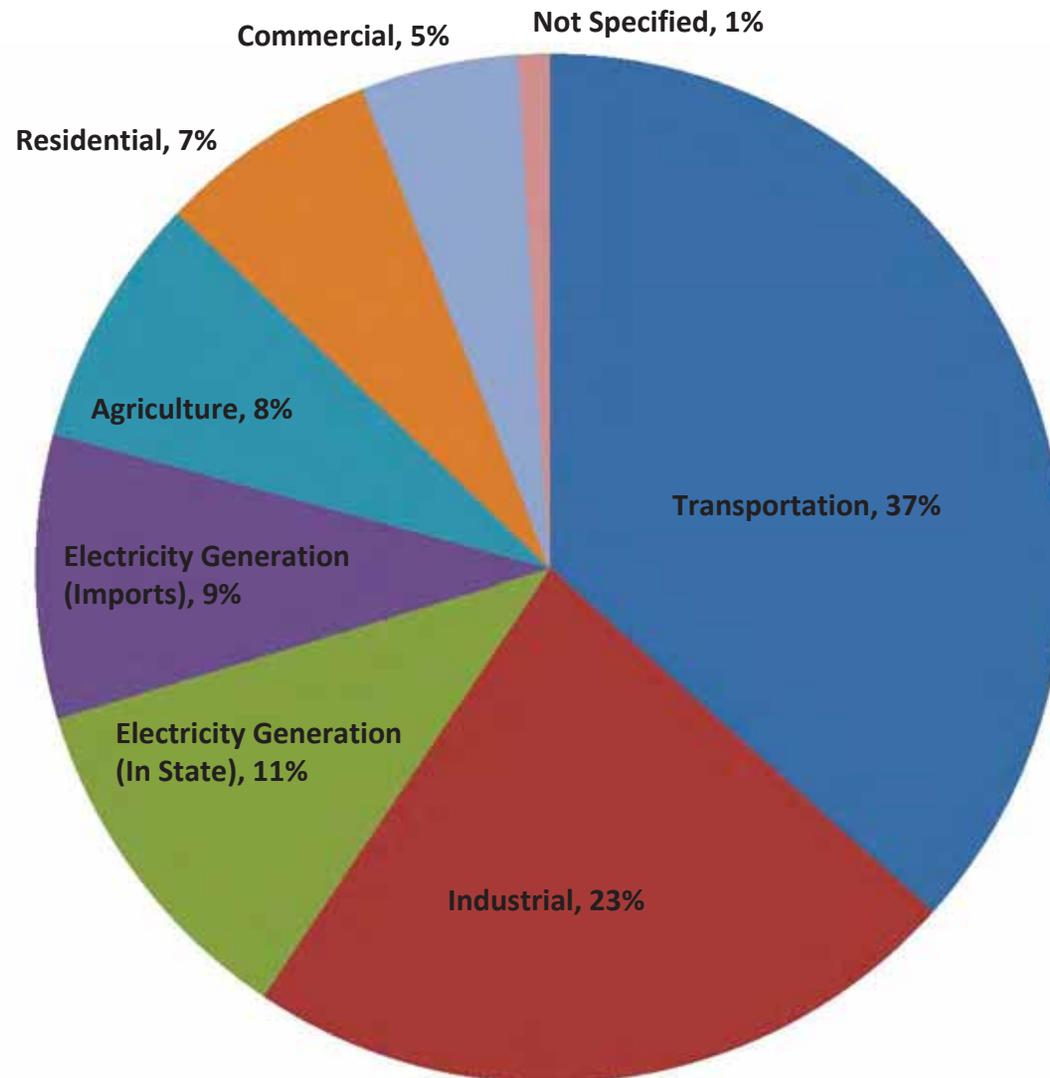
⁶⁴ California Air Resources Board. May 2014. *California Greenhouse Gas Emission Inventory: 2000 – 2012, 2014 edition*. Available at: http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

⁶⁵ Southern California Association of Governments. Accessed 25 August 2015. *The Greenhouse Gas Reduction Fund*. Available at: <http://www.scag.ca.gov/programs/Pages/GGRFExpenditurePlan.aspx?opentab=2>

Figure 3.8.2-2:

California: GHG Emissions by Sector, 2013

Total Emissions: 459 MMTCO₂e



SCAG, as part of its 2013 and 2014 legislative priorities adopted by Regional Council, has partnered with transportation, local government, business and environmental stakeholders from around the state to work closely with the legislature to ensure that equitable allocations of cap-and-trade revenues flow to transportation programs and policies reducing GHG emissions. These critical funding programs are expected to help local jurisdictions and SCAG's partners implement the 2012-2035 RTP/SCS (2012 RTP/SCS), adopted by SCAG Regional Council in April 2012.⁶⁶

The Affordable Housing & Sustainable Communities (AHSC) Program is a statewide competitive program that provides grants and loans for affordable housing, infill development, transit oriented development and related infrastructure. The Strategic Growth Council (SGC) and Department of Housing and Community Development (HCD) administer the program, including project evaluation and the approval of funding awards. Nine projects in the SCAG region were awarded funding for Round One of the AHSC Program. The nine projects totaled approximately \$27.5 million, representing approximately 22.5 percent of total funding statewide. These nine projects are: (1) 127th Street Apartments (City of Los Angeles); (2) Anchor Place (City of Long Beach); (3) Crenshaw Villas (City of Los Angeles); (4) Depot at Santiago (City of Santa Ana); (5) El Segundo Family Apartments (City of Los Angeles); (6) Macarthur Park Apartments Phase B (City of Los Angeles); (7) March Veterans Village (Riverside County); (8) Mosaic Gardens at Westlake (City of Los Angeles); and (9) Sylmar Court Apartments (City of Los Angeles).^{67,68} The Fiscal Year (FY) 2015–2016 Cap and Trade Expenditure Plan has an increase of approximately 270 million for the AHSC program, totaling \$400 million. The Greenhouse Gas Reduction Fund (GGRF) is expected to be \$2.2 billion in FY 2015–2016.⁶⁹

SCAG Region

The most recent GHG emissions data by sector for the SCAG region is from 2008 (**Figure 3.8.2-3, SCAG: GHG Emissions by Sector, 2008**). Similar to the 2013 U.S. and California GHG emission profiles, transportation, industrial, and electricity are the three largest contributors to GHG emissions (**Figure 3.8.2-1 and Figure 3.8.2-2**). Total SCAG emissions in 2008 were 230 MMTCO_{2e}. Transportation emissions are most prevalent relative to all other sectors in California and specifically in the SCAG region. Transportation emissions accounted for 40 percent of total emissions in the SCAG region, compared to 27 percent of total emissions in the United States.

In light of climate change, the SCAG region could face devastating environmental impacts if GHG emissions continue at a business as usual rate. Southern California will likely warm by 4 degrees Fahrenheit by 2100 with emission controls, or as much as 10 degrees Fahrenheit with no climate action. The region will experience longer, hotter, and more frequent heat waves as well as drought conditions

⁶⁶ Southern California Association of Governments. Accessed 25 August 2015. *The Greenhouse Gas Reduction Fund*. Available at: <http://www.scag.ca.gov/programs/Pages/GGRFExpenditurePlan.aspx?opentab=2>

⁶⁷ The SCAG region includes nearly 50 percent of the State's population and approximately 67 percent of the State's disadvantaged communities. In light of the approximately 23 percent of total statewide funding from the AHSC Program, SCAG plans to seek a fair share of funding in future rounds of cap and trade funding through implementation of the AHSC Program Action Plan, adopted by SCAG Regional Council in July 2015. Available at: http://scag.granicus.com/MetaViewer.php?view_id=9&clip_id=856&meta_id=15443

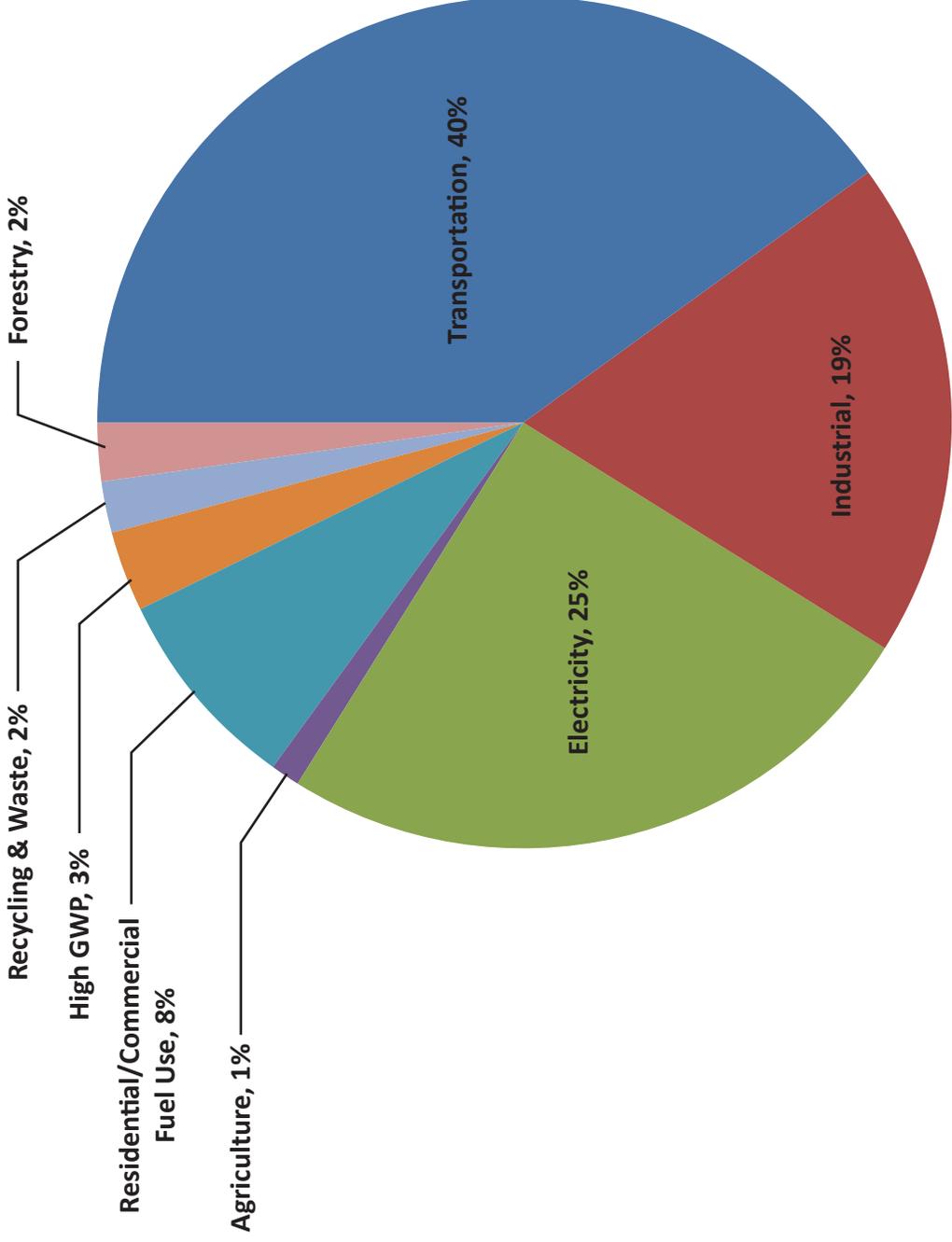
⁶⁸ Southern California Association of Governments. 3 September 2015. *Regional Council staff Report: Cap and Trade Greenhouse Gas Reduction Fund: Affordable Housing & Sustainable Communities (AHSC) Program Update*.

⁶⁹ Southern California Association of Governments. 2 July 2015. *Regional Council Staff Report: Cap and Trade Greenhouse Gas Reduction Fund: Affordable Housing & Sustainable Communities (AHSC) Program and State Expenditure Plan Update*.

Figure 3.8.2-3:

SCAG: GHG Emissions by Sector, 2008

Total Emissions= 230 MMT CO₂e



that limit the region's water supply as the snowpack in the Sierra Nevada and Colorado River Watershed is reduced. Along the coasts, the sea level could rise up to 1 foot above the 2000 level by 2050, and 1.5 feet to 4 feet above 2000 level by 2100.⁷⁰

Ongoing GHG Emission Reduction and Adaptation Strategies in the SCAG Region

Climate change affects natural and human systems globally. Climate mitigation strategies include reducing or sequestering GHG emissions, while climate adaptation is preparing for the unavoidable impacts from climate change. Climate mitigation strategies include, but are not limited to:⁷¹

- Promoting energy efficiency in buildings
- Using low carbon electricity
- Transitioning to high efficiency heating and cooling systems
- Using low carbon and alternative fuels
- Incorporating zero emission or hybrid vehicles
- Incorporating healthy community planning (active transportation)
- Increasing urban density
- Reducing automobile dependence
- Increasing transit options
- Integrating renewable energy
- Improving waste management

Climate adaptation solutions would be long term and require a shift in thinking on how communities are designed. Adaptation strategies include, but are not limited to:⁷²

- Using scarce water more efficiently
- Adapting building codes to future climate conditions and extreme weather events
- Building flood defenses and raising the levels of levees
- Developing drought tolerant crops
- Implementing urban tree planting and reforestation
- Setting aside land corridors for species migration
- Increasing collaboration on climate preparedness strategies among public agencies

The CARB Climate Action Plan Update, Appendix D1, the California Air Pollution Control Officers Association (CAPCOA) and Other Local and Regional Efforts to Implement Climate Protection Strategies, details the various approaches that local jurisdictions in California have taken to achieve GHG reduction targets. Regulations, plans, permitting, GHG inventories, emission banking and trading, grants,

⁷⁰ Southern California Association of Governments. July 2009. *Climate Change and the Future of Southern California*. Available at: http://sustain.scag.ca.gov/Sustainability%20Portal%20Document%20Library/ClimateChange_Full_lores.pdf

⁷¹ Energy + Environmental Economics. 6 April 2015. *Summary of the California State Agencies' PATHWAYS Project: Long-Term Greenhouse Gas Reduction Scenarios*. Available at: https://ethree.com/documents/E3_Project_Overview_20150406.pdf

⁷² California Air Resources Board. 2015. *FAQ about EO B-30-15: 2030 Carbon Target and Adaptation*. http://www.arb.ca.gov/newsrel/2030_carbon_target_adaptation_faq.pdf

incentives, and education have contributed to changing how people use energy and started a system where emissions are tracked and monitored.⁷³

Multiple jurisdictions in the SCAG region have taken action to address climate change. After assessing the climate vulnerabilities distinct to their community, these jurisdictions formulate a plan to move forward to minimize the impacts of these vulnerabilities. These actions take the form of climate action plans, general plan policies, GHG reduction plans, sustainability plans, and ordinances.⁷⁴ As shown above, the Regulatory Framework section covers these actions in greater detail as applicable to the counties and cities within the SCAG region.

SCAG presents annual Sustainability Awards to recognize exemplary planning projects that support the core principles of mobility, livability, prosperity, and sustainability. On May 7, 2015, SCAG presented Sustainability Awards to the following cities/counties and their associated sustainability projects:⁷⁵

- City of Anaheim—Anaheim Regional Transportation Intermodal Center (ARTIC)
- Los Angeles Department of Transportation—Broadway Dress Rehearsal Existing Conditions Report
- City of Glendale—Greener Glendale Plan for Community Activities
- City of Coachella—City of Coachella General Plan Update
- City of Rialto Public Works Department—Rails to Trails/ Along the Pacific Electric Railway
- Orange County Transit Association—Measure M2 Environmental Cleanup Program
- Los Angeles County—Los Angeles County General Plan Update

Past Sustainability Award winners include:

2014:

- Los Angeles County Metropolitan Transportation Authority (Metro)— First/Last Mile Strategic Plan & Planning Guidelines
- City of Santa Monica - Bike Santa Monica/Santa Monica Bike Action Plan
- City of San Gabriel City of San Gabriel - Greening the Code
- City of Santa Ana - Triada at the Station District
- Los Angeles Department of Transportation - LADOT People St
- City of Yucaipa - Historic Uptown Revitalization Program
- City of Oxnard-Groundwater Recovery, Enhancement and Treatment (GREAT) Program
- City of Lynwood - City-wide Residential Design Guidelines
- Imperial County Transportation Commission - El Centro and Brawley Transit Transfer Stations

⁷³ California Air Resources Board. February 10, 2014. *Climate Action Plan Update, Appendix D1, CAPCOA and Other Local and Regional Efforts to Implement Climate Protection Strategies*. Available at: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_d.pdf

⁷⁴ California Governor's Office of Planning and Research. 17 June 2014. *California Jurisdictions Addressing Climate Change*. Available at: http://www.opr.ca.gov/docs/California_Jurisdictions_Addressing_Climate_Change_PDF.pdf

⁷⁵ Southern California Association of Governments. Accessed 1 September 2015. *SCAG Sustainability Awards*. Available at: <http://sustain.scag.ca.gov/Pages/Awards.aspx>

- San Bernardino Associated Governments & County of San Bernardino - Countywide Vision

2013:

- Los Angeles County Metropolitan Transportation Authority (METRO) - Countrywide Sustainability Planning Policy
- City of Los Angeles - Cornfields Arroyo Specific Plan
- Coachella Valley Association of Governments – Coachella Valley Parkway 1e11
- County of Los Angeles - One Valley One Vision, Santa Clarita (OVOV)
- Western Riverside Council of Governments (WRCOG) - Highway 395 Corridor Study for Southwest Riverside County
- City of Fontana - Senior Apartments
- South Bay Bicycle Coalition/LA County Bicycle Coalition - South Bay Bicycle Master Plan
- City of Long Beach - The Collage Apartments
- Riverside Transit Agency (RTA)- Travel Training Program

2012:

- City of Glendale – Safe & Healthy Streets
- Western Riverside Council of Governments - Home Energy Renovation Opportunity (HERO) Program
- Orange County Transportation Authority - 4th Supervisorial District Bikeways Collaborative
- City of La Mirada - Imperial Highway Specific Plan
- City of Irvine - Irvine Business Complex Residential/Mixed Use Vision Plan
- City of La Quinta - Wolff Waters Place Affordable Housing Complex
- City of Long Beach - 4th & Linden Adaptive Reuse Project
- City of Artesia - Artesia Boulevard Corridor Specific Plan
- City of Los Angeles - Bonnie Brae Village Senior Community
- City of Chino - Re-Envisioning Chino: Implementing the 2025 General Plan

SCAG 2012 RTP/SCS

For the SCAG region, in 2011, CARB set the GHG emission reduction targets at 8 percent per capita by 2020 and 13 percent per capita by 2035. In April 2012, SCAG Regional Council approved the 2012 RTP/SCS. The 2012 RTP/SCS stated it would meet or exceed the region's GHG targets set by CARB by achieving a 9 percent per capita reduction by 2020 and a 16 percent per capita reduction by 2035 compared to the 2005 level on a per capita basis.⁷⁶ These targets remain the same for the 2016 RTP/SCS.

⁷⁶ Southern California Association of Governments. Adopted April 2012. *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Executive Summary*. Available at: http://rtpscsc.scag.ca.gov/Documents/2012/final/2012fRTP_ExecSummary.pdf

3.8.3 THRESHOLDS OF SIGNIFICANCE

The 2016 RTP/SCS would have a significant impact related to GHG emissions if it would:

- Increase GHG emissions compared to existing conditions (2015);
- Conflict with SB 375 GHG emission reduction targets; or
- Conflict with AB 32 or other applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

CEQA Guidelines Section 15064.4(a) confirms that lead agencies retain the discretion to determine the significance of GHG emissions. The Guidelines advise lead agencies to consider the following factors in determining the significance of GHG emissions: whether the project increases or reduces GHG emissions compared to the existing environmental setting, whether project emissions exceed a threshold of significance identified by the lead agency as appropriate to the project, and the extent to which the project compiles with regulations or requirements of certain adopted GHG reduction plans. (CEQA Guidelines Section 15064.4(b)). However, fundamentally, the courts recognize that lead agencies are allowed to decide what threshold of significance they will apply to a project. (See *Citizens for Responsible Equitable Development v. City of Chula Vista* (2011) 197 Cal.App. 4th 327, upholding an AB 32–based approach to setting significance thresholds.)

This PEIR uses three thresholds of significance: increase in GHG emissions compared to existing conditions; conflict with SB 375 GHG emission reduction targets; or conflict with AB 32 or other applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs. SCAG selected the SB 375–based threshold, because complying with SB 375 is the statutory requirement for the SCS. Evaluation to AB 32 and other applicable plan, policy, or regulation is consistent with CEQA Guidelines suggestions.

SCAG chose not to use the Executive Order emissions reduction goals as a specific threshold of significance because goals of the Executive Order are currently not considered an adopted GHG reduction target within the meaning of CEQA Guidelines Section 15064.4(b)(2), nor are the Executive Orders, regulations or requirements adopted to implement a statewide plan for reduction or mitigation of GHG under Section 15064.4(b)(3).⁷⁷ The 2016 Plan will be evaluated in terms of meeting AB 32 GHG emission reduction goals, SB 375 emission targets, and to determine if the trajectory of the SB 375 GHG emission reductions for the 2016 RTP/SCS would be consistent with the trajectory of the State’s long-term (2050) GHG emission reduction goals as set forth in the Executive Order S-3-05, Executive Order B-16-2012 and Executive B-30-15 as well as the accelerated GHG emission reduction timeline of Executive Order B-30-15.

Methodology

The GHG emissions were analyzed based off the Scenario Planning Model (SPM) and transportation modeling conducted by SCAG in 2015 (see also **Appendix C**). The SPM includes model run data for

⁷⁷Note that the California Supreme Court is currently reviewing the role of Executive Order S-3-05 in the context of CEQA thresholds for GHG emissions in *Cleveland Nat'l Forest Foundation v. San Diego Assn. of Gov'ts* (2014) 231 Cal. App. 4th 1056. Nevertheless, given the State’s policy to reduce GHG emissions in long term, the PEIR compares the regional GHG emissions resulting from the plan with the long terms goals set forth in Executive Order S-3-05, Executive Order B-16-2012, and Executive B-30-15.

energy, water, non-transportation GHG emissions, and public health data. GHG emissions and transportation data were projected to 2040 using SCAG's Regional Travel Demand Model and ARB's EMFAC2014 emissions model. Estimates of energy and water use are based on (1) current demand factors and (2) emission rates associated with current power generation operations and water supply.

Analysis of the potential GHG impacts of the 2016 Plan was conducted based on detailed modeling of on-road and gross estimates of stationary sources. As water and energy prices rise and as GHG regulations become stricter, it is anticipated that future energy demand will decrease as people respond to increased prices reducing the amount of energy they use. As energy providers and water suppliers respond to AB 32 and the Scoping Plan, emission rates associated with power and water delivery are anticipated to decrease. However, in order to present a conservative analysis and without knowledge of future regulations, technologies or market drivers, only modest reductions in demand are assumed. While the analysis takes into account regulations, programs, and policies currently in place, there is substantial uncertainty in projecting emissions for future horizon years. The analysis used reasonable assumptions regarding future conditions, but is limited as the Renewable Portfolio Standard does not set targets beyond 2020 and the ARB Advanced Clean Cars Program does not address passenger vehicles beyond the 2025 model year (see **Appendix C** for additional information regarding assumptions and methods used in the characterization of baseline conditions and analysis of greenhouse gas emissions).

3.8.4 IMPACT ANALYSIS

Impact GHG-1: Potential to directly or indirectly result in an increase in GHG emissions compared to existing conditions (2015).

Less than Significant Impact

The GHG emissions resulting from the Plan would be considered significant if the Plan is to cause an increase over existing (2015) levels. This impact threshold is based on CEQA's requirement that project impacts be compared to existing conditions.

Across the six counties in the SCAG region, the 2016 RTP/SCS would result in an approximately 24 percent decrease in GHG emissions by 2040, with the largest losses occurring in Los Angeles, Orange, and Ventura Counties (**Table 3.8.4-1 Greenhouse Gas Emissions from Transportation by County**). **Table 3.8.4-1** includes CO₂ instead of CO_{2e} because CO₂ is the primary GHG emitted by human activities. Thereby analyzing CO₂ emissions is representative of the GHG emissions.⁷⁸

⁷⁸ U.S. EPA. Overview of Greenhouse Gases. Accessed November 12, 2015.
<http://www3.epa.gov/climatechange/ghgemissions/gases/co2.html>

**TABLE 3.8.4-1
GREENHOUSE GAS EMISSIONS FROM TRANSPORTATION BY COUNTY***

County	CO ₂ Emissions (tons/day)				
	2005	2012 Base Year	2020 Plan	2040 Plan	2040 Plan vs. 2012 Base Year
Imperial	3,806.6	3,500.7	3,809.5	4,683.4	34%
Los Angeles	133,629.0	120,929.1	106,253.9	78,830.9	-35%
Orange	40,202.9	38,664.1	34,199.4	24,082.5	-38%
Riverside	32,937.6	33,447.2	33,593.3	32,489.4	-3%
San Bernardino	36,397.3	36,690.1	35,595.0	39,019.9	6%
Ventura	10,416.1	9,920.4	8,813.9	6,413.2	-35%
SCAG total	257,389.5	243,151.7	222,265.0	185,519.2	-24%

NOTE:

*Light and medium duty vehicles and heavy duty truck

SOURCE:

SCAG modeling, 2015.

As part of the transportation strategies, the 2016 RTP/SCS includes transportation investments which promote more active transportation opportunities and facilities. Between 2015 and 2040, the region is anticipated to experience substantial increases in population, households and jobs (see **Section 2, Project Description**, and **Section 3.14, Population, Housing, and Employment**). The 2016 RTP/SCS also includes land use strategies that seek to balance the region’s land use choices and transportation investments. This means the Plan focuses new growth and development in existing urbanized areas and opportunity areas such as the high quality transit corridors (HQTAs) and incorporates strategies to increase walking, biking or other forms of active transportation. To complement the integrated land use and transportation strategies is the implementation of technology. The integration of technology would include location-based land use strategies, increasing the efficiency to Plug-in Hybrid Electric Vehicles (PHEV) in the region and proposing a regional charging network. Because of the anticipated increase in compact and higher density development, less energy (e.g., multi-family housing units are insulated by each other as compared to single-family units and, therefore, require less heating and cooling) and less water (e.g., multi-family units have less landscaping requiring irrigation as compared to single-family units) is expected to be used and would contribute to the reduction in GHG emissions.

GHG emissions result from direct and indirect sources. Direct emissions in the transportation sector derive from fuel combustion in vehicles (i.e., autos, trucks, trains, buses, planes, ships and trains) and natural gas combustion from stationary sources. Indirect sources include off-site emissions occurring as a result of electricity, water consumption and solid waste. County-level GHG emissions from transportation were estimated for the GHG Baseline (2005), Year 2012 (Base Year), Year 2020 with Plan, and Year 2040 with Plan (**Table 3.8.4-1**). For the purpose of analyzing the 2016 RTP/SCS, the transportation emissions include on-road mobile sources: light and medium duty vehicles, and heavy duty trucks.

In the absence of reliable 1990 GHG emissions estimates, ARB’s Climate Change Scoping Plan recommends an equivalent metric of 15 percent below 2005 GHG emissions. On-road transportation emissions include fuel consumption from passenger vehicles, heavy-duty trucks, buses, and other motor vehicles. Transportation accounts for the greatest proportion of GHG emissions on a regional and state level. As part of the Plan, transportation network improvements would be included, and more compact,

infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand. Across the six counties in the SCAG region, GHG emissions from transportation are expected to decrease by approximately 24 percent by 2040 compared to existing conditions (2012 Base Year) with the largest losses in Orange, Los Angeles, and Ventura counties (Table 3.8.4-1).

In order to determine an increase or decrease in total GHG emissions, emissions from other major sectors including building energy and water-related consumption must be considered. Population and job growth would induce land use change (development projects) and increase VMT, and would result in direct and indirect GHG emissions. The Plan supports sustainable growth through a more compact, infill, and walkable development pattern. As stated previously, the Plan focuses growth in existing urban regions and opportunity areas, where transit and infrastructure are already in place. Locating new growth near bikeways, greenways, and transit would active transportation options and the use of other transit modes (public transit, carpooling), thereby reducing number of vehicle trips and trip lengths and associated emissions. Land use strategies included in the 2016 RTP/SCS encourage higher density development in existing urban cores and opportunity areas which would encourage more multi-family and/or mixed-use projects, via vertical development, instead of the traditional single-family home develop. Compact development and utilization of conservation strategies (i.e. Title 24 building codes, LEED certification), if implemented, would limit energy and water consumption.

Building energy emissions were computed in the SCAG model using a factor of 11.66 pounds (lb) CO_{2e}/therm for natural gas emissions from 2012 to 2040. Electricity emissions used a baseline (2040 No Project) of 0.74 lb CO_{2e}/kilowatt-hour (kWh) in all future years (2020, 2035 and 2040). Water-related energy assumed a factor of 13,021 kWh/MG for indoor water energy use and 11,110 kWh/MG for outdoor water energy use. As shown in Table 3.8.4-2, *Greenhouse Gas Emissions Summary for the SCAG Region*, transportation, building and water-related energy, shows a net decrease by 18 percent with the Plan in 2040 compared to existing conditions (2012 Base Year). These three sectors account for approximately 70 percent of the total GHG emissions in the SCAG region. It is important to note that the Plan is not responsible for addressing sectors beyond transportation, building, water-related energy consumption, and construction. Though GHG emissions from construction are generally associated with construction equipment, current and projected data with respect to construction emissions is not available. However, as noted in the 2012 RTP/SCS PEIR, construction related emissions account for less than 0.3 percent of total of the three sectors shown in Table 3.8.4-2. This is due to the fact that the Plan is primarily a transportation plan with land use development strategies. SCAG does not collect information beyond their requirements and cannot assess the GHG impacts to the remaining contributing sectors. Given this limited scope, the Plan would result in a less than significant impact with respect to GHG emissions compared to existing conditions, and mitigation measures would not be required.

**TABLE 3.8.4-2
GREENHOUSE GAS EMISSIONS SUMMARY FOR THE SCAG REGION**

Area	CO ₂ e Emissions (MMT CO ₂ e per year)			
	2012 Base Year	2020 Plan	2040 Plan	2040 vs. 2012
Transportation*	88.75	81.62	67.71	-24%
Building energy**	53.68	40.51	49.99	-7%
Water-related energy**	7.41	3.84	4.79	-35%
Total	149.84	125.97	122.49	-18%

NOTE:

* Light and medium duty vehicles and heavy duty trucks.

** Scenario Planning Model is a scenario planning tool used for developing scenarios for the Plan during the scenario planning process to compare relative differences among scenarios.

SOURCE:

SCAG Modeling, 2015.

Impact GHG-2: Potential to conflict with SB 375 GHG Emission Reduction Targets.

Less than Significant Impact

As indicated by CEQA Appendix G, a significant GHG impact is identified if the Plan could conflict with applicable GHG reduction plans, policies, or regulations. As described in the Regulatory Framework, SB 375 requires CARB to develop regional GHG emission reduction targets for cars and light trucks for 2020 and 2035 (compared to 2005 emissions) for each of the State MPOs on a per capita basis. Each MPO is required to prepare an SCS in conjunction to with the RTP in order to meet these GHG emissions reduction targets by aligning transportation, land use, and housing strategies with respect to AB 375. For SCAG, the targets are to reduce per capita GHG emissions by 8 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035. Determining the per capita CO₂ emissions requires modeling vehicle miles traveled (VMT) by passenger vehicles and light trucks that emit CO₂ (see Table 3.3.4-4, *Daily VMT by County*, in Section 3.3, *Air Quality*) and dividing that number by the total population.

SCAG estimates that the per capita 2005 emissions from cars and light-duty trucks as 23.8 pounds CO₂ per person per day (Table 3.8.4-3, *SB 375 Analysis*).



**TABLE 3.8.4-3
SB 375 ANALYSIS**

	2005 (Baseline)	2020 (Plan)	2035 (Plan)	2040 (Plan)
Resident population (per 1,000)	17,161	19,060	21,475	22,116
CO ₂ emissions (per 1,000 tons)	204.0*	203.6**	206.0**	203.0**
Per capita emissions (pounds/day)	23.8	21.4	19.5	18.7
% difference from Plan (2020) to Baseline (2005)				-8%*
% difference from Plan (2035) to Baseline (2005)				-18%***
% difference from Plan (2040) to Baseline (2005)				-22%***

NOTE:

* Based on EMFAC2007

** Based on EMFAC2014

***Included off-model adjustments for 2035 and 2040

SOURCE:

SCAG modeling, 2015

Southern California Association of Governments. 5 November 2015. *Item No. 1 Staff Report: 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) – Proposed Major Components*. Available at: <http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf>

As shown in **Table 3.8.4-3**, per capita CO₂ emissions from cars and light duty trucks (only) are calculated to be 21.4 pounds per day in 2020 with the Plan. The result of the Plan is an 8 percent decrease in per capita CO₂ emissions from 2005 to 2020. The percent decrease would achieve the 8 percent emissions reduction target by 2020 for the region set by SB 375. By 2035, the 2016 RTP/SCS projects 19.5 pounds per day for per capita CO₂ emissions from cars and light duty trucks (only). This represents an approximately 18 percent decrease in per capita CO₂ emissions from 2005 to 2035. This 18 percent decrease would meet and exceed the 13 percent emissions reduction target set by CARB for 2035. Furthermore, although there is no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the Plan’s GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040 (**Table 3.8.4-3**). The Plan would result in an estimated 22 percent decrease in per capita GHG emissions by 2040 (**Figure 3.8.4-1, SB 375 GHG (per capita) Reduction Trajectory**). By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 22 percent decrease in per capita GHG emissions by 2040 (an additional 4 percent reduction in the five years between 2035 [18 percent] and 2040 [22 percent]), the Plan is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State’s GHG emission reduction goals. As such, the Plan would not conflict with SB 375 GHG emission reduction targets and would result in a less-than-significant impact, and mitigation measures would not be required.

Impact GHG-3: Potential to conflict with AB 32 or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

Less than Significant Impact

AB 32 Discussion. As indicated by CEQA Appendix G, a significant GHG impact is identified if the Plan could conflict with applicable GHG reduction plans, policies, or regulations. AB 32 calls for GHG emissions to be reduced to 1990 levels by 2020. CARB’s Scoping Plan functions as a roadmap to achieve AB 32 GHG reductions. Because the Plan focuses on a portion of the transportation sector (i.e., automobiles and light duty trucks pursuant to SB 375) and land use strategies, it does not incorporate

SB 375 GHG (per capita) Reduction Trajectory



● ARB GHG Reduction Target Trajectory for SCAG Region

● 2016 RTP/SCS GHG Reduction Trajectory

FIGURE 3.8.4-1:

SB 375 GHG (per capita) Reduction Trajectory

implementation of all the AB 32 Scoping Plan strategies that address a broad range of economic sectors. GHG emissions reductions achieved through SCS land use strategies are incorporated into the analysis of the transportation network improvement emissions reductions. The Plan includes proposed transportation improvements to be integrated and coordinated with proposed land use changes that would lead to reduced congestion, reduced VMT, and increased transit, walking, and biking options.

The Plan alone is not intended to meet the AB 32 emissions reduction targets. By meeting the SB 375 targets, the Plan has contributed its share, if not greater, to meeting the AB 32 targets. The Plan has demonstrated that it met and exceeded CARB's targets for greenhouse gas emissions from light duty passenger vehicles for 2020 and 2035, respectively. Specifically, as shown in **Figure 3.8.4-1**, the Plan is showing a GHG emission reduction trajectory that would meet and exceed SB 375 between 2020 and 2040, and beyond. Given that the primary statutory responsibility of the 2016 RTP/SCS is to achieve SB 375 targets, which it does, and the goals set forth by AB 32 are intended to be achieved by all the responsible sectors, the Plan has successfully contributed its share, if not greater, to meeting the AB 32 target. Additionally, "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32."⁷⁹ The compact land use patterns of the Plan provide more efficient use of water and energy of building operations, among others. This efficiency leads to GHG emissions reduction beyond SB 375 and ensures the region to be on track with AB 32 goals. The assurance for meeting statewide AB 32 goals as outlined in the Plan as well as in the First Update to the Climate Change Scoping Plan provide a pathway towards meeting the State's long-term GHG emissions reduction goals as set forth in Executive Orders. Therefore, the Plan is not in conflict with AB 32.

In summary, the proposed Plan would not conflict with applicable recommendations in the ARB's Scoping Plan Update for the Transportation focus area. The 2014 Scoping Plan Update identified several recommended actions within the Transportation sector to achieve future GHG reductions, with the recommendations primarily focused on achieving major technological and regulatory changes in order to reduce GHG emissions from all types of vehicles and transportation fuels, including more efficient vehicles, low carbon fuels like electricity and hydrogen, and supporting infrastructure. The Update also identified the following applicable recommendations for transportation:

- - Caltrans and regional transportation agencies will increase investment in expanded transit and rail services, active transportation, and other VMT reduction strategies in their next regional transportation plans.
 - ARB, Caltrans, the Strategic Growth Council, and the Department of Housing and Community

Development, along with other State, local and regional agencies, would coordinate planning and support to ensure that the expected GHG emission reductions from approved SCS are achieved or exceeded. The Plan would not conflict with the recommendation to increase investment in expanded transit and rail services, active transportation, and other VMT reduction strategies in the Scoping Plan Update. From 2016 to 2040, the Plan includes increased investment in transit and rail services, active transportation, and other VMT reduction strategies.

⁷⁹ California Air Resources Board. May 2014. *First Update to the Climate Change Scoping Plan*. Available at: <http://www.ourenergypolicy.org/wp-content/uploads/2014/05/cali-scoping.pdf>

Climate-Related Plans Discussion. The 2016 RTP/SCS is in alignment with the goals and objectives set by the county and city climate-related plans. While the specific targets may vary by city/county, the 2016 RTP/SCS takes a look at the programmatic level to assess consistency with these plans. Both on the regional and local levels, the climate-related plans lay out efforts to increase energy efficiency, promote energy conservation, design green buildings, reduce VMT, encourage transit-oriented developments, and integrate renewable energies. As described in **Section 2.0, Project Description**, of this PEIR, the Plan includes integrated transportation and land use strategies to promote active transportation opportunities, compact development, car sharing and ride sourcing, and technology in zero-emission vehicles and neighborhood electric vehicles. Additionally, the 2016 RTP/SCS includes a regional charging network that will increase the number of Plug-in Hybrid Electric Vehicles (PHEV) miles driven on electric power, thereby resulting in a potential to double the electric range of PHEVs and reducing vehicle miles traveled that produce tail-pipe GHG emissions. With aligned goals, the 2016 RTP/SCS is expected to result in a less than significant impact on city and county climate-related plans.

Executive Orders Discussion. On April 29, 2015, Governor Brown issued Executive Order (EO) B-30-15, which established a new statewide interim GHG emissions reduction target of 40 percent below 1990 GHG emissions levels by 2030. The EO B-30-15 also reiterated the GHG emissions reduction target to reduce emissions to 80 percent below 1990 levels by 2050 set forth by EO S-3-05 in 2005 by Governor Schwarzenegger. Executive Order B-16-2012 also set the same target for 2050 for the transportation sector: 80 percent less than 1990 levels. This 2050 target is also incorporated in the CARB Scoping Plan Update.

The following discussion is for illustrative purposes as the Executive Orders are not plans, policies or regulations adopted for the purpose of reducing GHG emissions. As stated above, the 2016 RTP/SCS alone is not intended to meet the AB 32 target or the targets set by EO B-30-15, EO B-16-2012, and EO S-3-05. By meeting the SB 375 targets (see **Impact GHG-2: Potential to conflict with SB 375 GHG Emission Reduction Targets**), the Plan has successfully contributed its share, if not greater, to meeting the AB 32 target. The 2016 RTP/SCS is currently required to meet the GHG reduction targets set by CARB, i.e., 8% reduction by 2020 and 13% by 2035, both on per capita basis relative to 2005 levels. The GHG reduction trajectory of the 2016 RTP/SCS is consistent with and is more aggressive than the ARB GHG Reduction Target Trajectory for the SCAG region, as the Plan's trajectory shows aggressive GHG reductions between 2020 and 2040 (**Figure 3.8.4-1**). It should be noted that CARB has not established a 2030 target or a 2050 target for the transportation sector to meet the targets set by EO B-30-15, EO B-16-2012, and EO S-3-05. However, the new statewide interim 2030 target set forth under EO B-30-15 suggests that an accelerated timeline would be necessary. In order to address this new interim 2030 target, the 2016 RTP/SCS accelerates the reduction of GHG emissions such that by 2030, the Plan is expected to achieve a 14.7% reduction. This reduction would exceed SCAG's current target of 13% by 2035.

In addition, by 2040, the horizon year of the 2016 RTP/SCS, the Plan is expected to achieve a 22% reduction in the GHG emissions of cars and light trucks. As shown on **Figure 3.8.4-1**, the 2016 RTP/SCS has met and exceeded the CARB's targets for 2020 and 2035, respectively. The GHG reduction trajectory of the 2016 RTP/SCS is much more aggressive than CARB's targets between 2020 and 2035. Additionally, the GHG reduction trajectory of the 2016 RTP/SCS beyond 2030 is consistent, if not more aggressive, with the accelerated pace established in the recent Executive Order B-30-15. Further, it should be noted that the goals set forth by AB 32 and the Executive Orders are intended to be achieved by all the responsible sectors. Yet, the 2016 RTP/SCS is demonstrated to contribute the Plan's

share, if not more, comparing to the accelerated pace. Therefore, the Plan itself is not in conflict with the State long-term GHG emissions reduction goals as set forth in Executive Orders.

3.8.5 CUMULATIVE IMPACTS

Impact GHG-1: Potential to directly or indirectly result in an increase in GHG emissions compared to existing conditions (2015).

Less than Significant Cumulative Impact

Implementation of the transportation projects included in the 2016 RTP/SCS, when taken into consideration with other development and infrastructure projects within the SCAG region and surrounding areas, would result in a 22 percent decline in GHG emissions by 2040 compared to existing conditions. Other GHG-emitting sectors beyond light and medium duty vehicles and heavy duty trucks for transportation, building energy, and water-related energy are not considered as part of the Plan. Given the state and federal leadership as shown in AB 32, EO B-30-15, EO B-16-2012, EO S-3-05, Presidential Executive Order 13154 and Revised Draft Guidance on Consideration of Greenhouse Gas Emissions and Climate Change in NEPA Reviews. As a result, the Plan would result in a less than significant cumulative impact with respect to increasing GHG emissions compared to existing conditions.

Impact GHG-2: Potential to conflict with SB 375 GHG Emission Reduction Targets.

Less than Significant Cumulative Impact

The Plan meets and exceeds SB 375 targets for reducing GHG emissions. This demonstrates that the Plan is able to do more than its share to reducing GHG emissions for light and medium duty vehicles and heavy trucks resulting in a less than significant cumulative impact with respect to the SB 375 targets.

Impact GHG-3: Potential to conflict with AB 32 or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

Significant Cumulative Impact

While the Plan acknowledges all the responsible sectors are not in conflict with AB 32 and Executive Orders, in the event of a worst case scenario, such as other responsible agency implementation activities do not achieve their respective GHG emission reduction goals to the appropriate level, the environmental analysis results in a determination that there would be a potential for a significant cumulative impact requiring the consideration of mitigation measures.

3.8.6 MITIGATION MEASURES

Mitigation measures described below are in response to the significant cumulative impact. Mitigation measures are categorized into two categories: SCAG mitigation and project-level mitigation measures.

SCAG mitigation measures shall be implemented by SCAG over the lifetime of the 2016 RTP/SCS. Project-level mitigation measures can and should be implemented by Lead Agencies for transportation and development projects, as applicable and feasible.

Cumulative Impacts

IMPACT GHG-3: Potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

SCAG Mitigation Measures

MM-GHG-3(a)(1): SCAG shall update any future RTP/SCS to incorporate policies and measures that lead to reduced GHG emissions in accordance with AB 32.

MM-GHG-3(a)(2): SCAG shall coordinate with CARB and air districts in efforts to implement the AB 32 Scoping Plan.

MM-GHG-3(a)(3): SCAG shall continue coordination with other metropolitan planning organizations (MPOs) regarding statewide strategies to reduce GHG emissions and facilitate the implementation of SB 375.

MM-GHG-3(a)(4): SCAG shall work with utilities, sub-regions, and other stakeholders to promote accelerated penetration of zero- (and/or near zero-) emission vehicles in the region, including developing a strategy for the deployment of public charging infrastructure.

MM-GHG-3(a)(5): SCAG shall in its capacity as a Clean Cities Coalition establish coordinated, creative public outreach activities, including publicizing the importance of reducing GHG emissions and steps community members may take to reduce their individual impacts.

MM-GHG-3(a)(6): SCAG shall work with local community groups and business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation such as the "Go Human" Campaign.

MM-GHG-3(a)(7): SCAG shall support and/or sponsor workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems.

MM-GHG-3(a)(8): SCAG shall in coordination with local jurisdictions (as practicable) support and/or sponsor a periodic Climate Protection Summits or Fairs, to educate the public on current climate science, projected local impacts, and local efforts and opportunities to reduce GHG emissions, including exhibits of the latest technology and products for conservation and efficiency.

MM-GHG-3(a)(9): Schools Programs: SCAG shall develop and implement a program in coordination with school districts to present information to students about climate change and ways to reduce GHG emissions, and will support school-based programs for GHG reduction, such as school-based trip reduction and the importance of recycling.

MM-GHG-3(a)(10): As outlined in the AHSC Action Plan approved by the Regional Council at the July 2, 2015, meeting, SCAG shall work with the Strategic Growth Council and seek legislative revisions to AHSC programs to revise the AHSC competitive grant program for future rounds.

MM-GHG-3(a)(11): SCAG shall encourage local jurisdictions to support the following transportation-related strategies to reduce emissions:

- Support the planning and development of HQTAs, jobs and housing balance, transit oriented development, and infill development through transportation investments and other funding decisions.
- Offer incentives such as free or low-cost monthly transit passes to employees or free ride areas to residents and customers
- Coordinate the funding of low carbon transportation with smart growth development.
- Promote parking management measures that encourage walking and transit use in smart growth areas.
- Develop comprehensive parking policies that encourages the use of alternative transportation
- Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments, and create transit, bicycle, and pedestrian connections.
- Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.

MM-GHG-3(a)(12): As part of SCAG's Sustainability Program, SCAG shall assist local jurisdictions in developing Climate Actions Plans (CAPS, also known as Plans for the Reduction of Greenhouse Gas Emissions), as appropriate and feasible.

Project-Level Mitigation Measures

MM-GHG-3(b): Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases that are within the jurisdiction and authority of California Air Resources Board, local air districts, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases, the Lead Agency can and should consider mitigation measures to mitigate the significant effects of greenhouse gas impacts to ensure compliance with all applicable laws, regulations, governing CAPs, general plans, adopted policies and plans of local agencies, and standards set forth by responsible public agencies for the purpose of reducing emissions of greenhouse gases, as applicable and feasible. Consistent with Section 15126.4(c) of the State CEQA Guidelines, compliance can be achieved through adopting greenhouse gas mitigation measures that have been used for projects in the SCAG region as set forth below, or through comparable measures identified by Lead Agency:

- Measures in an adopted plan or mitigation program for the reduction of emissions that are required as part of the Lead Agency's decision.

- Reduction in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.
- Off-site measures to mitigate a project's emissions.
- Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to:
 - Use energy and fuel efficient vehicles and equipment;
 - Deployment of zero- and/or near zero emission technologies;
 - Use lighting systems that are energy efficient, such as LED technology;
 - Use the minimum feasible amount of GHG-emitting construction materials that is feasible;
 - Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
 - Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;
 - Incorporate design measures to reduce energy consumption and increase use of renewable energy;
 - Incorporate design measures to reduce water consumption;
 - Use lighter-colored pavement where feasible;
 - Recycle construction debris to maximum extent feasible;
 - Plant shade trees in or near construction projects where feasible; and
 - Solicit bids that include concepts listed above.
- Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to, transit-active transportation coordinated strategies, increased bicycle carrying capacity on transit and rail vehicles;
- Incorporating bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; providing adequate bicycle parking and planning for and building local bicycle projects that connect with the regional network;
- Improving transit access to rail and bus routes by incentives for construction of transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and
- Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs.
- Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;
- Land use siting and design measures that reduce GHG emissions, including:
 - Developing on infill and brownfields sites;
 - Building high density and mixed use developments near transit;
 - Retaining on-site mature trees and vegetation, and planting new canopy trees;Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing

- or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and
- Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

MM-EN-2(b).

3.8.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Cumulative Impacts

IMPACT GHG-3: Potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

While implementation of Mitigation Measures MM-GHG-3(a)(1) through MM-GHG-3(a)(12), MM-GHG-3(b) and MM-EN-2(b) would reduce the cumulative impacts related to GHG emissions, the effectiveness of the mitigation measures identified above cannot be reasonably quantified at this time. Although the mitigation measures would encourage reduction in GHG emissions, they would not guarantee GHG emission reductions. Under SCAG's limited authority, these measures are not directly enforceable and the cumulative impacts would remain significant and unavoidable.

Appendix C: Supplementary Information regarding Transportation and Circulation

C-1. Caltrans Letter to the City of Los Angeles, November 30, 2015

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
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www.dot.ca.gov



*Serious Drought.
Serious drought.
Help save water!*

November 30, 2015

Ms. Luciralla Ibarra
City of Los Angeles
200 N. Spring Street, Room 750
Los Angeles, CA 90012

RE: Palladium Residences
SCH #2013081022
Ref. IGR #130817AL-NOP
IGR #141044AL-DEIR

Dear Ms. Ibarra:

I am writing in response to Mr. Tartakovsky's letter, dated November 23, 2015, regarding the Palladium Residences Project, located at 6215 Sunset Boulevard in the City of Los Angeles.

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Project. The Project is located at 6215 Sunset Boulevard in the City of Los Angeles.

As you know, the US-101 corridor through the Hollywood area and beyond is congested and has been a challenge for the region for decades. It is a vital transportation corridor that connects the region, and there is a great need for mobility improvements. CH Palladium, the Project applicant, has indicated a willingness to work collaboratively and comprehensively with Caltrans to address the mobility needs of the US-101 corridor. Caltrans appreciates CH Palladium's efforts. Further, since publication of the Palladium Residences' Final EIR, another project has agreed to fund the installation of a traffic signal at Gower Street and the US-101 Southbound.

Mr. Tartakovsky's November 23, 2015 letter offered, on a voluntary basis, to contribute funds to the City to be used towards the identification and implementation of mobility improvements in the US-101 corridor. Caltrans remains willing to partner with the City and other stakeholders to identify and implement mobility improvements in the US-101 corridor. As such, CH Palladium's proposed voluntary contribution of \$200,000 (which represents the cost of a traffic signal at Gower Street & the US-101) would go toward the identification and implementation of mobility and safety improvements in the US-101 corridor.

Caltrans appreciates the spirit of mutual collaboration with CH Palladium and the City of Los Angeles, as this partnership presents a unique opportunity to make important mobility and safety improvements in this

Ms. Ibarra
November 30, 2015
Page 2

corridor. Caltrans has no further comments on this project and looks forward to working with the City and CH Palladium.

Thank you for your efforts toward bringing important mobility and safety improvements to the US-101 corridor.

Sincerely,



DIANNA WATSON, Branch Chief
LD-IGR/CEQA Review
Caltrans District 7

C-2. Fehr & Peers, Palladium Residences – Cumulative Analysis including Hollywood Crossroads and 6200 Sunset Related Projects, February 10, 2016.

MEMORANDUM

Date: February 10, 2016
To: Gary Schalman, PCR
From: Tom Gaul, Anjum Bawa, and Spencer Reed, Fehr & Peers
Subject: **Palladium Residences – Cumulative Analysis including Proposed New Hollywood Crossroads and 6200 Sunset Projects**

LA13-2571

Fehr & Peers conducted a Future Base (Year 2018) and Future (Year 2018) plus Project intersection level of service (LOS) and significant impact sensitivity analysis to study the effect of including two new projects proposed after publication of the Palladium Residences Final EIR in the Year 2018 Baseline condition – Crossroads Hollywood and 6200 Sunset:

- Crossroads Hollywood – This project is located approximately at 1540 Highland Avenue, the project is proposing the development of 190 condominiums, 760 apartments, 185,000 square feet of retail, 95,000 square feet of office, and 308 hotel rooms. The project will remove all existing uses on the site except the 68,000 square foot Crossroads of the World complex.
- 6200 Sunset – This project is located at 6200 Sunset Boulevard, the project proposes the development of a new mixed-use project comprising of 270 apartments and approximately 12,400 square feet of commercial retail and restaurant space. The project will remove all existing uses on the site.

Trip generation estimates for the two new projects were calculated using the trip generation rates contained in *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE], 2012). Table 1 presents the resulting trip generation estimates for the two new projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

An intersection LOS analysis was conducted to determine the effect of the Palladium Residence project traffic on the study intersections with the inclusion of the two new projects in the future



baseline for the currently proposed project Option 1. Table 2 presents the results of the intersection LOS and significant impact analyses.

Determination: Addition of the two recently proposed projects to the future baseline will not result in any new Project-related significant traffic impacts.

**TABLE 1
TRIP GENERATION ESTIMATES FOR NEW PROJECTS**

PROJECT NAME	LAND USE	PROJECT LOCATION	TRIP GENERATION ESTIMATES						NET DAILY
			AM PEAK HOUR			PM PEAK HOUR			
			IN	OUT	NET	IN	OUT	NET	
6200 Susnet	270 apartments and 12.4 ksf commercial	6200 Susnet Blvd	-8	70	62	29	-20	9	1,045
Hollywood Crossroads	185 ksf retail, 95 ksf office, 950 units, and 308 hotel rooms	1540 Highland Ave	317	338	655	604	626	1,230	14,292
Total			309	408	717	633	606	1,239	15,337

**TABLE 2
CUMULATIVE PLUS PROJECT OPTION 1 (RESIDENTIAL ONLY)
INTERSECTION LEVEL OF SERVICE ANALYSIS**

ID	N/S Street Name	E/W Street Name	Analyzed Periods	Cumulative Base 2018		C+P 2018 (Option 1)		Project Increase In V/C	Significant Impact	C+P (2018) plus Mitigation		Project Increase In V/C	Significant Impact
				V/C	LOS	V/C	LOS			V/C	LOS		
1	Wilcox Ave	Sunset Blvd	AM PM	0.635 0.719	B C	0.639 0.723	B C	0.004 0.004	NO NO	[a]			
2	Cahuenga Boulevard	Franklin Avenue	AM PM	1.054 1.091	F F	1.054 1.100	F F	0.000 0.009	NO NO	[a]			
3	Cahuenga Boulevard	Hollywood Boulevard	AM PM	0.954 0.837	E D	0.957 0.842	E D	0.003 0.005	NO NO	[a]			
4	Cahuenga Boulevard	Selma Avenue	AM PM	0.624 0.659	B B	0.637 0.669	B B	0.013 0.010	NO NO	[a]			
5	Cahuenga Boulevard	Sunset Boulevard	AM PM	1.075 1.212	F F	1.083 1.219	F F	0.008 0.007	NO NO	[a]			
6	Ivar Ave	Sunset Boulevard	AM PM	0.478 0.657	A B	0.482 0.660	A B	0.004 0.003	NO NO	[a]			
7	Vine Street	US-101 Southbound Off-Ramp/ Franklin Avenue	AM PM	0.633 0.409	B A	0.637 0.409	B A	0.004 0.000	NO NO	[a]			
8	Vine Street	Hollywood Boulevard	AM PM	0.925 0.837	E D	0.931 0.840	E D	0.006 0.003	NO NO	[a]			
9	Vine Street	Selma Avenue	AM PM	0.667 0.718	B C	0.680 0.743	B C	0.013 0.025	NO NO	[a]			
10	Vine Street	Sunset Boulevard	AM PM	1.050 1.257	F F	1.058 1.266	F F	0.008 0.009	NO NO	[a]			
11	Vine Street	Fountain Avenue	AM PM	0.864 0.873	D D	0.871 0.879	D D	0.007 0.006	NO NO	[a]			
12	Vine Street	Santa Monica Boulevard	AM PM	1.173 1.265	F F	1.181 1.273	F F	0.008 0.008	NO NO	[a]			
13	Argyle Avenue	US-101 Northbound On-Ramp	AM PM	0.555 0.613	A B	0.567 0.620	A B	0.012 0.007	NO NO	[a]			
14	Argyle Avenue	Hollywood Boulevard	AM PM	0.518 0.783	A C	0.525 0.796	A C	0.007 0.013	NO NO	[a]			
15	Argyle Avenue	Selma Avenue	AM PM	0.523 0.576	A A	0.552 0.624	A B	0.029 0.048	NO NO	[a]			
16	Argyle Avenue	Sunset Boulevard	AM PM	0.514 0.563	A A	0.533 0.588	A A	0.019 0.025	NO NO	[a]			
19	El Centro Avenue	Sunset Boulevard	AM PM	0.597 0.697	A B	0.615 0.709	B C	0.018 0.012	NO NO	[a]			

In accordance with LADOT guidelines, unsignalized intersections are analyzed for signal warrants but not for level of service impacts. Therefore, the following study intersections are not shown in this table but rather are part of the signal warrant analysis presented later in this chapter: 17. El Centro Avenue & Hollywood Boulevard; 18. El Centro Avenue & Selma Avenue; 20. El Centro Avenue & De Longpre Avenue; 24. Gower Street & US-101 northbound off-ramp; 25. Gower Street & US-101 southbound off-ramp/Yucca Street; 27. Gower Street & Selma Avenue; 38. US-101 southbound on-ramp & Sunset Boulevard.

[a] Intersection not significantly impacted under the cumulative scenario.

[b] To be conservative, no credit was taken for the proposed signal system equipment upgrades. Intersection will remain significantly impacted under impact criteria.

**TABLE 2
CUMULATIVE PLUS PROJECT OPTION 1 (RESIDENTIAL ONLY)
INTERSECTION LEVEL OF SERVICE ANALYSIS**

ID	N/S Street Name	E/W Street Name	Analyzed Periods	Cumulative Base 2018		C+P 2018 (Option 1)		Project Increase In V/C	Significant Impact	C+P (2018) plus Mitigation		Project Increase In V/C	Significant Impact
				V/C	LOS	V/C	LOS			V/C	LOS		
21	El Centro Avenue	Fountain Avenue	AM PM	0.515 0.474	A A	0.533 0.483	A A	0.018 0.009	NO NO	[a]			
22	El Centro Avenue	Santa Monica Boulevard	AM PM	0.636 0.592	B A	0.651 0.602	B B	0.015 0.010	NO NO	[a]			
23	Gower Street	Franklin Avenue	AM PM	0.714 0.912	C E	0.714 0.921	C E	0.000 0.009	NO NO	[a]			
26	Gower Street	Hollywood Boulevard	AM PM	0.923 0.841	E D	0.929 0.878	E D	0.006 0.037	NO YES	0.929 0.878	E D	0.006 0.037	NO YES [b]
28	Gower Street	Sunset Boulevard	AM PM	1.005 1.109	F F	1.019 1.144	F F	0.014 0.035	YES YES	1.019 1.144	F F	0.014 0.035	YES [b] YES [b]
29	Gower Street	Fountain Avenue	AM PM	0.854 0.849	D D	0.864 0.865	D D	0.010 0.016	NO NO	[a]			
30	Gower Street	Santa Monica Boulevard	AM PM	1.102 1.352	F F	1.113 1.362	F F	0.011 0.010	YES YES	1.113 1.362	F F	0.011 0.010	YES [b] YES [b]
31	Gordon Street (West)	Sunset Boulevard	AM PM	0.709 0.696	C B	0.713 0.709	C C	0.004 0.013	NO NO	[a]			
32	Gordon Street (East)	Sunset Boulevard	AM PM	0.470 0.725	A C	0.473 0.733	A C	0.003 0.008	NO NO	[a]			
33	Bronson Avenue	Hollywood Boulevard	AM PM	0.741 0.775	C C	0.745 0.785	C C	0.004 0.010	NO NO	[a]			
34	Bronson Avenue	Sunset Boulevard	AM PM	0.753 0.899	C D	0.757 0.904	C E	0.004 0.005	NO NO	[a]			
35	US-101 Southbound On/ Off-Ramps	Hollywood Boulevard	AM PM	0.713 0.537	C A	0.716 0.539	C A	0.003 0.002	NO NO	[a]			
36	US-101 Northbound On/ Off-Ramps	Hollywood Boulevard	AM PM	0.641 0.584	B A	0.643 0.591	B A	0.002 0.007	NO NO	[a]			
37	Van Ness Avenue	Sunset Boulevard	AM PM	0.855 0.879	D D	0.858 0.884	D D	0.003 0.005	NO NO	[a]			

In accordance with LADOT guidelines, unsignalized intersections are analyzed for signal warrants but not for level of service impacts. Therefore, the following study intersections are not shown in this table but rather are part of the signal warrant analysis presented later in this chapter: 17. El Centro Avenue & Hollywood Boulevard; 18. El Centro Avenue & Selma Avenue; 20. El Centro Avenue & De Longpre Avenue; 24. Gower Street & US-101 northbound off-ramp; 25. Gower Street & US-101 southbound off-ramp/Yucca Street; 27. Gower Street & Selma Avenue; 38. US-101 southbound on-ramp & Sunset Boulevard.

[a] Intersection not significantly impacted under the cumulative scenario.

[b] To be conservative, no credit was taken for the proposed signal system equipment upgrades. Intersection will remain significantly impacted under impact criteria.

C-3. Revised Table 3 from Page 74 of Appendix K-1, Traffic Analysis Report, Construction Period Trip Generation (Revised to Reflect Restriction on Truck Travel Outside of the Peak Periods)

**TABLE 15
CONSTRUCTION PERIOD TRIP GENERATION
(REVISED TO REFLECT RESTRICTIONS ON TRUCK TRAVEL OUTSIDE OF PEAK PERIODS)**

Peak Day Activity Under Each Phase

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<i>Construction Workers</i>	18	16		522	
Passenger Car Equivalent (PCE) factor	1.0	1.0		1.0	

<i>Haul Trucks</i>	180	-	-	-	-
Type of Trucks	Super 10s	-	-	-	-
Passenger Car Equivalent (PCE) factor	2.0	-	-	-	-

<i>Delivery/Equipment Trucks</i>	-	600		207	
Type of Truck	-	Concrete Truck		Vendor/Delivery Truck	
Passenger Car Equivalent (PCE) factor	-	2.0		2.0	

Phase	Daily PCE Trips [1]	Morning Peak Hour PCE Trips			Evening Peak Hour PCE Trips		
		In	Out	Total	In	Out	Total
Phase 1 - Grading/Excavation							
Construction Worker Trips[2]	36	7	0	7	0	7	7
Haul Truck Trips [3]	720	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Phase 1 Total	756	<u>7</u>	<u>0</u>	<u>7</u>	<u>0</u>	<u>7</u>	<u>7</u>
Phase 2 - Concrete Pour (1-2 days)							
Construction Worker Trips[2]	32	6	0	6	0	6	6
Haul Truck Trips [3]	0	0	0	0	0	0	0
Concrete Truck Trips [4]	2,400	<u>50</u>	<u>50</u>	<u>100</u>	<u>50</u>	<u>50</u>	<u>100</u>
Phase 2 Total	2,432	<u>56</u>	<u>50</u>	<u>106</u>	<u>50</u>	<u>56</u>	<u>106</u>
Phase 3 - Building Construction							
Construction Worker Trips[2]	1,044	209	0	209	0	209	209
Haul Truck Trips [3]	0	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	828	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Phase 3 Total	1,872	<u>209</u>	<u>0</u>	<u>209</u>	<u>0</u>	<u>209</u>	<u>209</u>
Phase 4 - Architectural Coating							
Construction Worker Trips[2]	1,044	209	0	209	0	209	209
Haul Truck Trips [3]	0	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	828	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Phase 4 Total	1,872	<u>209</u>	<u>0</u>	<u>209</u>	<u>0</u>	<u>209</u>	<u>209</u>
Phase 5 - Paving							
Construction Worker Trips[2]	1,044	209	0	209	0	209	209
Haul Truck Trips [3]	0	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	828	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Phase 5 Total	1,872	<u>209</u>	<u>0</u>	<u>209</u>	<u>0</u>	<u>209</u>	<u>209</u>

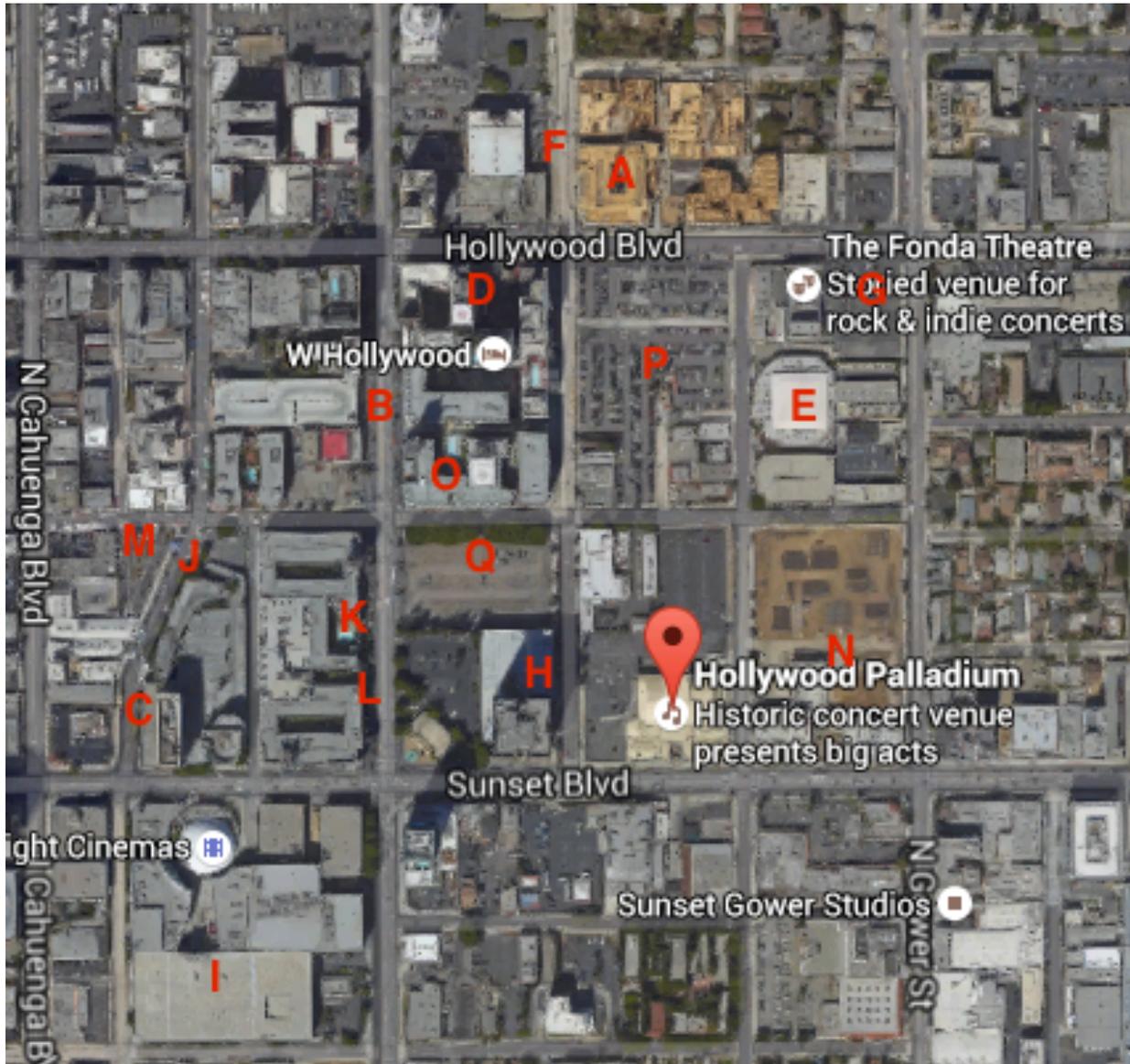
PCE - Passenger car equivalent

Notes:

- [1] - Daily trips were calculated by counting two trips, one inbound and one outbound trip for each vehicle
- [2] - Up to 40% of the construction workers were assumed to arrive during the morning peak hour of adjacent street traffic. A total of up to 40% worker were assumed to depart during the evening peak hour.
- [3] - Haul and delivery/equipment truck trips were assumed to travel during non-peak travel periods, in accordance with the Project's Conditions of Approval.
- [4] - Concrete trucks would arrive and depart continuously throughout the 1- to 2-day continuous concrete pour phase.

C-4. Proper Parker, Parking Options surrounding the Hollywood Palladium

OFF-SITE PARKING OPTIONS



OFF-SITE PARKING OPTIONS ADDRESSES & SPACES

LOT	ADDRESS	SPACES
A	6201 Hollywood Boulevard Los Angeles, CA 90028	1300-1400 (549 Public Use Spaces)
B	1625 N. Vine Street Los Angeles, CA 90028	457 Spaces
C	1530 Ivar Avenue Los Angeles, CA 90028	980 Spaces
D	6250 Hollywood Boulevard Los Angeles, CA 90028	300 Spaces
E	1628 N. El Centro Avenue Los Angeles, CA 90028	300-350 Spaces
F	1723 Argyle Avenue Los Angeles, CA 90028	18 Spaces
G	6104 Hollywood Boulevard Los Angeles, CA 90028	112 -150 Spaces
H	6255 Sunset Boulevard Los Angeles, CA 90028	600 Spaces
I	1400 Ivar Avenue Los Angeles, CA 90028	2,000 Spaces
J	1588 Ivar Avenue Los Angeles, CA 90028	189 Spaces
K	1555 N. Vine Street Los Angeles, CA 90028	555 Spaces
L	1530 Vine Street Los Angeles, CA 90028	60 Spaces
M	6366 Selma Avenue Los Angeles, CA 90028	45 Spaces
N	1500 N. El Centro Los Angeles, CA	1,400 Spaces

O	1600 Vine Street Los Angeles, CA 90028	200-250 Spaces
P	6240 Hollywood Boulevard Los Angeles, CA	Eastown Phase 2 Spaces TBD
Q	1540 N. Vine Street Los Angeles, CA	In Construction Approximately 750 Spaces

Appendix D: Supplementary Analysis Regarding Noise Impacts

D-1. Revised Table 4.I-10

ERRATA 2 – APPENDIX D-1

Draft EIR Table 4.I-10 – with **Tracked** Changes to Account for 2020 Traffic Volumes

Off-Site Traffic Noise Impacts – Future 2020 Conditions Option 1

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)				Exceed Threshold? Option 1/ Option 2	Future Project Increment ^b (C-B)	Project Increment Exceed Threshold? Option 1
	Existing (A)	Future No Project (B)	Future with Project ^a Option 1 (C)	Cumulative Increment Option 1 (C-A)			
Gower Street							
Between Franklin Avenue and US-101 Northbound Off-Ramp	66.2	66.8	66.8	0.6	No	0.0	No
Between Hollywood Boulevard and Selma Avenue	66.5	67. 87	68. 07 9	1. 54	No	0.2	No
Between Selma Avenue and Sunset Boulevard	66.4	67. 43	67. 65	1. 21	No	0.2	No
Between Sunset Boulevard and Fountain Avenue	65.9	66. 76	66. 87	0. 98	No	0.1	No
Vine Street							
Between Franklin Avenue and Hollywood Boulevard	67.5	68. 54	68. 54	1. 09	No	0.0	No
Between Selma Avenue and Sunset Boulevard	68.1	69.1	69.1	1.0	No	0.0	No
Between Fountain Avenue and Santa Monica Boulevard	68.5	69. 43	69. 43	0. 98	No	0.0	No
Argyle Avenue							
Between US-101 Northbound On-Ramp and Hollywood Boulevard	63.4	65. 87	65.8	2.4	No	0. 01	No
Between Hollywood Boulevard and Selma Avenue	63.6	65.4	65.5	1.9	No	0.1	No
Between Selma Avenue and Sunset Boulevard	61.7	63. 43	63. 76	2. 01 9	No	0.3	No
Bronson Avenue							
Between Hollywood Boulevard and Sunset Boulevard	63.9	64. 87	64. 87	0. 98	No	0.0	No

Table 4.I-10 (Continued)

Off-Site Traffic Noise Impacts – Future 2020 Conditions Option 1

Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			Cumulative Increment Option1 (C-A)	Exceed Threshold? Option1/ Option 2	Future Project Increment ^b (C-B)	Project Increment Exceed Threshold? Option 1
	Existing (A)	Future No Project (B)	Future with Project ^a Option1 (C)				
El Centro Avenue							
Between Selma Avenue and Sunset Boulevard	59.8	62. 10	62. 21	2. 43	No	0.1	No
Sunset Boulevard and De Longpre Avenue	61.1	62. 21	62. 43	1. 32	No	0.2	No
North of Fountain Avenue	59.3	60.8	61.1	1.8	No	0.3	No
South of Fountain Avenue	58.6	59. 87	60. 10	1. 54	No	0.3	No
Fountain Avenue							
Between Vine Street and El Centro Avenue	64.3	64. 98	64.9	0.6	No	0. 01	No
Between El Centro Avenue and Gower Street	64.2	64.6	64.6	0.4	No	0.0	No
Sunset Boulevard							
Between Vine Street and Argyle Avenue	71.7	72.8	72. 98	1. 21	No	0.0	No
Between Argyle Avenue and El Centro Avenue	71.8	72.9	73. 01	1.2	No	0. 02	No
Between El Centro Avenue and Gower Street	71.9	73.1	73.1	1.2	No	0.0	No
Selma Avenue							
Between Cahuenga Boulevard and Vine Street	62.4	64. 32	64. 43	2. 01+9*	No	0.1	No
Between Vine Street and Argyle Avenue	62.7	64. 98	65.1	2.4*	No	0. 23	No
Between Argyle Avenue and El Centro Avenue	61.1	64.1	64. 98	3. 87*	No	0. 87	No
Between El Centro Avenue and Gower Street	58.5	63.0	64.0	5.5	Yes	1.0	No

Table 4.I-10 (Continued)

Off-Site Traffic Noise Impacts – Future 2020 Conditions Option 1

Roadway Segment	Calculated Traffic Noise Levels at 25 feet from Roadway, CNEL (dBA)			Cumulative Increment Option1 (C-A)	Exceed Threshold? Option1/ Option 2	Future Project Increment ^b (C-B)	Project Increment Exceed Threshold? Option 1
	Existing (A)	Future No Project (B)	Future with Project ^a Option1 (C)				
Franklin Avenue							
Between Cahuenga Boulevard and US-101 Southbound Off-Ramp	69.7	70.3	70.3	0.6	No	0.0	No
Between US-101 Northbound On-Ramp and Gower Street	69.2	69. 87	69. 87	0. 65	No	0.0	No
East of Gower Street	69.6	70. 32	70.3	0.7	No	0. 01	No

^a Include future growth plus related (cumulative) projects and proposed project traffic.

^b Increase due to project-related traffic only at project build-out.

* The previous cumulative noise increases at these locations are the correct values based on 2018 traffic volumes, as calculated in Appendix H-1.5 of the Draft EIR, page 6. These values correct the incorrect values originally typed into Table 4.I-10 of the Draft EIR. The revised values approximate the corrected values; and the correction does not alter the conclusions of the Draft EIR.

Source: PCR Services Corporation, 2016

