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Via Electronic Mail Only

Ms. Kim Stater
Assistant Community Development
Director
City Of Highland
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Highland, CA 92346
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Re: Harmony Specific Plan (SPR-011-001) EIR SCH No. 2012071065

Dear Ms. Stater:

This firm represents Greenspot Residents Association on matters relating to the proposed Harmony Specific Plan. In conjunction with Baseline Environmental Consulting, we have reviewed the Draft Environmental Impact Report (“DEIR”) and the Final Environmental Impact Report (“FEIR”), collectively referred to as the “EIR”, for the proposed Project. The purpose of this letter is to inform the City that the EIR violates the minimum standards of adequacy under the California Environmental Quality Act (“CEQA”), Public Resources Code § 21000 et seq. The Greenspot Residents Association is deeply concerned about the far-ranging environmental impacts that the Project may have on environmental resources and public safety in the vicinity of the Project.

The EIR suffers from two essential defects: (1) its thoroughgoing failure to accurately describe the Project, and (2) its failure to take a realistic, supported look at the Project’s impacts, particularly its potential to cause flooding hazards for downstream communities and its substantial contribution to California’s greenhouse gas emissions. Critical elements of the Project are not described at all. Those aspects that the EIR does attempt to describe are depicted with so little detail that a reader is left with no idea of how the various elements of the Project will function.

The total failure of the project description makes the rest of the EIR inadequate as well. Because the concrete details of the construction and operation of the

Project appear to be unplanned and therefore unknown, its environmental impacts cannot be accurately analyzed, nor can effective mitigation be identified. The fog of uncertainty surrounding the Project and its impacts leads inevitably to vague or deferred analysis and mitigation. The reader—meaning the public and decision makers-- is given the impression that impacts will be determined as they happen and mitigation may be worked out some time in the future, if ever.

Where the EIR has attempted to consider the Project's impacts, it has left huge gaps. Giant, car-dependent developments like this cannot simply slide through the CEQA process without a very serious consideration of their contribution to climate change. The Legislature and the Supreme Court have provided guidance on how to analyze that contribution, but the EIR ignores those rules. As described further below and in the Supreme Court's decision in *Center for Biological Diversity v. California Dep't of Fish & Wildlife* (2015) 62 Cal.4th 204, EIRs for new developments like this one must acknowledge their heightened responsibility for meeting the State's ambitious (but achievable) emissions-reduction goals.

The project would place huge- though unquantified- amounts of fill in the Mill Creek floodplain, very likely changing its capacity and hydrodynamics. But the EIR looks only at potential flooding impacts within the Project; it completely ignores the hazards that it will send downstream to neighbors in Mentone, Colton, and San Bernardino. This is not a mere technical violation of CEQA, it is a dangerous, callous failure to consider the real effects of this bloated Project.

As a result of the EIR's numerous and serious inadequacies, there has been no meaningful public review of the Project, and there cannot be such review unless and until the EIR is wholly revised. The City decision makers cannot reasonably consider approval of the proposed Project without an adequate understanding of the environmental issues at stake. Further, the City must develop feasible and prudent alternatives to development at this location.

This letter, along with the report prepared by Baseline Environmental Consultants, attached as Exhibit A, constitute Greenspot Residents Association's comments on the EIR. We respectfully refer the City to the Baseline Report, both here and throughout these comments, for further detail and discussion of the EIR's inadequacies.

I. The EIR's Flawed Project Description Does Not Permit Meaningful Public Review of the Project.

In order for an EIR to adequately evaluate the environmental ramifications of a project, it must first provide a comprehensive description of the project itself. “An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR.” *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 730 (quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal. App. 3d 185, 193). As a result, courts have found that even if an EIR is adequate in all other respects, the use of a “truncated project concept” violates CEQA and mandates the conclusion that the lead agency did not proceed in the manner required by law. *San Joaquin Raptor*, 27 Cal. App. 4th at 729–30. Furthermore, “[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” *Id.* at 730 (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable.

Here, the EIR's Project Description does not come close to meeting these established legal standards. The Project as proposed appears to be enormously complex, yet the EIR discusses Project components in such a superficial manner that these complexities are all but ignored. Moreover, the EIR's cryptic approach to the Project Description makes environmental review nearly impossible. In most instances, the reader first learns the details of the Project not in the Project Description section of the EIR, but within each of the environmental impact chapters. Such an approach would be acceptable *if* each of the environmental analysis chapters actually identified the Project components and then analyzed their environmental effects. Unfortunately, the environmental analysis chapters do no such thing. The description of Project is so poor that it requires a monumental effort on the part of the reader to gain even the most superficial understanding of the project.

For example, the EIR fails to provide details about design and construction of the proposed new Mill Creek Bridge crossing over Mill Creek at the southeast corner of the project site. *See* RDEIR Appendix P.4. The proposed Mill Creek Bridge is identified as a regional project that would be initiated by the City of Highland. The EIR maintains that the Mill Creek bridge is not a part of this proposed Project and the City is thus not obligated to fully evaluate its impacts. FEIR at 2-29.

However, as commenters on the EIR explain, the proposed Mill Creek Bridge is a reasonably foreseeable consequence of the Harmony Project: it has been planned by the City to serve the Project, chiefly by providing an additional point of

egress in the event of an emergency (*e.g.*, fire or earthquake). FEIR at 2-29, Comment 5-A. The Project proposes to locate more than 12,000 new residents in this area. DEIR at 5.7-33. The Bridge would exist to serve these residents. In an emergency, such as a wildfire or earthquake, evacuation will be to the south, away from the mountains and open land that borders the Project to the north. There is no population, other than the Project's future residents, that would use the Mill Creek Bridge. The Bridge therefore has no independent utility; instead it is an integral part of the Project and must be analyzed as such, in this EIR. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713. The EIR must include a more detailed description of this bridge and a full evaluation of its impacts. Instead, it defers the necessary evaluation to an undetermined date in the future, thereby illegally segmenting the Project.

CEQA prohibits such segmentation of a project. *See Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214, 1229 (“when one activity is an integral part of another activity, the combined activities are within the scope of the same CEQA project” and must be analyzed together); Guidelines § 15378(a) (“‘Project’ means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.”). Breaking the project into smaller sub-projects will lead to inadequate environmental review. *See, e.g., Bozung v. Local Agency Formation Comm’n* (1975) 13 Cal.3d 263, 283-84 (CEQA mandates that “environmental considerations do not become submerged by chopping a large project into many little ones”).

The Mill Creek Bridge would undoubtedly result in additional potentially significant environmental impacts that the EIR ignores.¹ These include, but are not limited to, growth-inducing impacts, and biological and hydrological impacts from streamflow disruptions to Mill Creek and other downstream water bodies. Because the EIR never even describes the bridge or its construction, it also fails to analyze any of these impacts or to consider mitigation measures. CEQA prohibits such omissions. CEQA Guidelines § 15378(a).

¹ Because Mill Creek is likely a “water of the United States” under the Clean Water Act, the bridge may additionally require federal permitting and environmental review. Avoidance of such scrutiny is not an appropriate reason for deferring the Bridge’s design and evaluation. The City, however, has offered no other reason for its failure to consider the Bridge now.

In another example, the EIR fails to adequately describe the storm water system required for implementation of the Project. *See* Exhibit A, Baseline Report at 1 and 2. The Specific Plan and EIR present only the most cursory description of the storm water system and defer to the future preliminary designs of these project elements. DEIR at 3-22. A description of these storm water management design features is critical for a project-level analysis because such facilities require space within the site-plan to be constructed and maintained to effectively address National Pollutant Discharge Elimination System (NPDES) compliance. This lack of detail regarding the drainage design makes it impossible for the public and decision makers to understand the whole of the project. Based on the description provided, it is impossible to determine whether the proposed system is even feasible, let alone effective.

In yet another example of a flawed Project Description, the EIR fails to disclose the amount of contaminated soils on-site that would have to be excavated and transported away. The EIR discloses that “Project construction activities would also uncover soil contamination as a result of past agricultural operations and leaking oil filled smudge pots.” FEIR at 5.8-21. But rather than evaluate the extent and severity of the health risk and the remediation effort required, the EIR defers the necessary evaluation so that the amount of soil to be excavated and transported off-site remains unknown. Similarly, the EIR provides only the most cursory description of the grading plan. *See* Specific Plan Exhibit 5-7.

The EIR’s failure to describe the amount of soil to be excavated and transported off-site is a critical omission because this Project activity implicates other analyses in the EIR. Transporting significant amounts of soil will potentially result in hundreds, or even thousands, of truck trips and corresponding impacts related to traffic congestion, air quality impacts, and noise impacts.

In addition, the EIR also fails to include information on the following additional Project components:

- location of the Project staging areas;
- location of spoils sites and haul routes;
- description of construction-related activities (including location, number of construction employees, etc.).

The failure to describe the whole of the Project is a serious and pervasive deficiency, as it renders faulty the EIR’s environmental impact analyses as well as the discussion of

potential mitigation measures and alternatives to minimize those impacts. The EIR must provide a sufficient description of the Mill Creek Bridge, the Project's storm water system and necessary hydromodification, the amount of soil contamination to be removed from the site, details of anticipated construction activities and any other Project details. This information is necessary to allow decision makers, the public and responsible agencies to evaluate potential environmental impacts.

II. The EIR's Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.

This strategy, while made inevitable by the inadequate project description, is wholly unlawful under CEQA. The EIR is "the heart of CEQA." *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal. 3d 376, 392 (citations omitted). It is "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." *Id.* (citations omitted). Where, as here, the environmental review document fails to fully and accurately inform decision-makers, and the public, of the environmental consequences of proposed actions, it does not satisfy the basic goals of either statute. *See* Pub. Res. Code § 21061 ("The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect that a proposed project is likely to have on the environment. . . .").

The evaluation of a proposed project's environmental impacts is the core purpose of an EIR. *See* CEQA Guidelines § 15126.2(a) ("An EIR shall identify and focus on the significant environmental effects of the proposed project"). It is well-established that the City cannot defer its assessment of important environmental impacts until after the project is approved. *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-07.

As explained below, the EIR fails to analyze the Project's numerous environmental impacts, including those affecting land use, transportation and circulation, air quality, climate change, public health and safety, and hydrology and water quality. In addition, in numerous instances, the EIR also fails to adequately analyze the Project's cumulative impacts. These inadequacies require that the EIR be revised and recirculated so that the public and decision-makers are provided with a proper analysis of the Project's significant environmental impacts and feasible mitigation for those impacts. *See* CEQA Guidelines § 15002(a)(1) (listing as one of the "basic purposes" of CEQA to

“[i]nform governmental decision makers and the public about the potential, significant environmental effects of proposed activities”).

A. The EIR’s Analysis of the Project’s Impacts on Hydrology and Water Quality Fails to Satisfy the Requirements of CEQA.

The EIR’s analysis of the Project’s impacts to water quality, storm water runoff, and flooding is inadequate because it fails to: (a) describe Project design features and construction activities; (b) adequately analyze the Project’s significant impacts; (c) support its conclusions with the necessary facts and analysis; and (d) identify mitigation capable of minimizing the Project’s significant environmental impacts.

Bruce Abelli-Amen, a hydrologist with Baseline Environmental Consulting, reviewed the Harmony Specific Plan EIR hydrology and water quality analysis and the document’s Hydrology and Sedimentation Technical Study, referred to as DEIR Appendix I.1. The Baseline Report provides an evaluation of the EIR’s Hydrology and Flooding analysis. We highlight some of the most critical points of that Report below.

As discussed above, the EIR fails to provide an adequate description of the Project, a problem that handicaps the document’s analysis of the Project’s environmental impacts. The Project Description and related graphics do not provide sufficient detail about proposed facilities to determine whether the Harmony Specific Plan will have adverse impacts related to water quality, groundwater recharge, or flooding. For example, the EIR acknowledges that the Project would increase impervious surfaces across the site, resulting in decreased groundwater recharge potential and increased surface runoff. DEIR at 5.9-25. However, as explained in the Baseline Report, the EIR provides no explanation of the importance of the Project site as a groundwater recharge area. Baseline Report at 3 and 4. Foothill areas at range fronts, like the Project site, are typically prime recharge areas and the coarse-grained soils that cover much of the site would promote recharge. *Id.* Moreover, the EIR provides no analysis of the current rates of recharge or how that recharge might be affected by the proposed increase in impervious cover. *Id.* Third, the EIR improperly defers study of the Project’s impacts on groundwater quality to the future, relying on a Water Quality Management Plan, which was not a part of the EIR, to mitigate the impacts. DEIR at 5.9-25. This is unacceptable under CEQA: it improperly defers critical decision-making that could affect the effectiveness of the water quality measures, with no performance standard to ensure or gauge success.

Another glaring omission is the EIR’s complete failure to provide details regarding the amount of fill to be placed within the flood plain. The EIR indicates that

“residential or commercial uses that lie within the Zone A flood plain will be graded and elevated so that they are removed from the flood plain.” DEIR at 5.9-22. This operation would obviously involve placing large amounts of fill in the floodplain, but EIR fails to quantify just how much. Without such analysis the EIR cannot analyze the potential that the required construction work will result in erosion and transport sediment into Mill Creek. The EIR fails entirely to describe this construction activity, let alone analyze how it would impact the Creek’s water quality.

Moreover, as pointed out in the Baseline Report, the EIR fails to describe how the proposed fill might affect floodplain storage capacity or impact downstream flood-prone areas. According to Baseline, many communities have established “no net fill” in the floodplain regulations for new development because they recognize that placing fill in the floodplain can dramatically increase downstream flooding risks. Baseline Report at 5 and 6. Review of downstream flood insurance rate maps indicates that there are numerous downstream communities that have flood-prone areas that could be adversely impacted, including Mentone, San Bernardino, and Colton. *Id.* The EIR fails completely to identify this potential impact and thus offers no analysis to demonstrate the severity of the impact or needed measures to mitigate it. This Project would impose serious risks on the City’s downstream neighbors, but the EIR provides no warning or mitigation. The Project cannot be approved without further analysis and input from the impacted communities.

This lack of analysis and mitigation is inconsistent with the City of Highland General Plan Public Health and Safety Element, which states:

*Policy 6.3-3 Require a drainage study be completed by a qualified engineer prior to all proposed development to certify that the proposed development will be adequately protected **and that implementation of the development will not create new downstream flood hazards** (emphasis added).*

Evaluation of downstream hazards requires first a grading plan that clearly demonstrates the location and depth of fill proposed to be placed in the flood plain and then hydraulic analysis of that plan. Without this analysis, the City cannot demonstrate that the Project is consistent with the General Plan. The City cannot legally approve the Project without this analysis.

Unlike its total failure to grapple with downstream impacts, the EIR acknowledges that the Project has the potential to impact flooding and surface water quality on the Project site, it fails—in clear violation of CEQA—to provide the facts or analysis needed to support its determination that that these impacts will not be significant.

The EIR identifies significant impacts related to substantially increasing runoff that would result in flooding on-site and that would add substantial additional sources of polluted runoff. DEIR at 1-22; 5.9-26 and 5.9-28. But rather than analyzing these impacts now, the EIR defers analysis of these significant impacts until after Project approval. *See* DEIR at 1-22 (MM HYD 1 requires preparation of a drainage plan and MM HYD 2 requires a hydrology analysis). This information is critical to evaluation of the Project's impacts on the site's hydrology and impacts to area waters. As such, the drainage plan and hydrology analysis must be prepared now to comply with CEQA and meet the General Plan's requirements. .

Finally, the EIR implies that state regulations requiring review and oversight of the erosion control system by the Regional Water Board will ensure that potential impacts will be avoided or mitigated. DEIR at 5.9-28. Under well-established case law, compliance with regulations does not excuse the agency from describing Project activities or from analyzing resulting impacts. *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal. App. 3d 872, 885. The EIR fails to support conclusion that the Project's impacts on water quality are less than significant. *Id.*

In sum, the EIR must clearly and consistently describe each of the Project's elements and perform the necessary analysis prior to Project approval. Without this information, it is simply not possible to verify the accuracy of the EIR's analysis of the Project's impact related to on-site hydrology and water quality. As to downstream impacts, the EIR has entirely skipped over the required analysis and is wholly inadequate.

B. Hazards and Hazardous Materials

As discussed above in Section I of this letter, the EIR defers analysis of potential hazardous materials present in on-site soils. DEIR at 1-20, 5.8-21; FEIR at 4-18, 5.8-21. The EIR discloses that the Project site contains contaminated soils due to the site's historic use for agricultural operations, including its legacy of leaking, oil-filled smudge pots. FEIR at 5.8-21. Yet, despite acknowledging this significant impact, the EIR fails to disclose the extent and severity of the known contamination. Rather than conducting the analysis, the EIR proposes Mitigation Measure HAZ 2, which defers the required analysis by requiring that the contaminated ground surfaces be assessed at a later date and remediated so that hazardous materials are disposed as required by applicable regulations. FEIR at 5.8-21, 5.8-22.

However, because the EIR fails to evaluate the extent and severity of the soil contamination on site, the true magnitude of the potential impact is ignored. The EIR may not simply announce that an impact will be significant and propose mitigation: it

must describe the impact itself, disclosing the potential environmental effects to the public and decision makers.

The EIR moreover fails entirely to disclose the possibility that the area is additionally contaminated with perchlorates, which may cause thyroid problems in children and adults. See Agency for Toxic Substances and Disease Registry, Public Health Statement: Perchlorates, attached as Exhibit B. Fertilizers applied to citrus crops, like those formerly on the Project site (DEIR at 1-1), are common sources of perchlorate contamination. See United States Department of Defense, Report to the Congress: Perchlorate in the Southwestern United States, excerpts attached as Exhibit C, at 58-59.

Moreover, the amount of soil to be excavated and transported off-site remains unknown. Given the size of the site, and that most of it was in agricultural use, the amount of contaminated soil could be enormous, requiring substantial excavation and truck trips to facilitate removal. Thus, the EIR's omission of this analysis also implicates the EIR's traffic, air quality, greenhouse gases, and noise analyses.

The EIR's analysis of cumulative impacts related to hazardous materials is also completely inadequate. It essentially declines to provide any analysis of cumulative impacts, simply stating instead that all hazardous material impacts—both the Harmony Projects' and all future projects'-- will be mitigated to a less than significant level. DEIR at 7-15. The assertion lacks the support of substantial evidence. But even it were correct, it does not serve as a cumulative impact analysis. The purpose of a cumulative impacts analysis is to consider whether a series of impacts, each less than significant on its own, may add up to a significant impact. Contrary to the EIR's assumption, hazardous materials impacts may, in fact accumulate, as when small releases or upsets, each mitigated in its own context, allow small amounts of materials into the environment. These may add up to a significant impact. This is especially true in the project area and victim, where there is one former shooting range, the Inland Fish and Game Conservation Association, and one operating one, the Redlands Shooting Park, both of which have released lead shot to the environment. The Redlands Shooting Park, in particular, borders the Santa Ana River, where Project-induced hydrological changes may cause the release of previously-buried contaminants. The cumulative impact analysis must be revised to account for the contribution of the Project, along with past and reasonably foreseeable future projects, to potential hazardous materials impacts.

C. The EIR's Analysis of the Project's Health Risks is Legally Inadequate.

The EIR acknowledges that the Project site contains an undisclosed amount of contaminated soils that require excavation and removal off-site. FEIR at 5.8-29. As

discussed above, removal of these soils is likely to result in a substantial number of truck trips that the EIR fails to take into account. *Id.* (defers analysis of soils and need to transport them offsite until after Project approval.) Yet, the EIR's air quality analysis fails to account for those truck trips. This omission alone renders the air quality analysis inadequate.

The EIR also discloses that construction of the Project would result in significant localized impacts due to diesel particulate matter ("DPM") emissions that would result in exceedance of the annual PM-10 (or particulate matter) significance threshold. DEIR at 5.3-21. Notwithstanding these disclosures, the EIR stops short of explaining the actual and specific consequences to residents and others who will be forced to endure the air pollution generated by the Project. For example, the Project's construction emissions would exceed the federal 1-hour nitrogen dioxide standard (RDEIR at 5.3-21) and operational emissions would exceed SCAQMD daily significance thresholds for VOC, NOX, CO, and PM-10, and PM-2. RDEIR at 5.3-16. Yet, remarkably, the EIR never explains what exactly it means to be exposed to this level of additional air emissions when the region is already plagued by severely unhealthy levels of air pollution. We believe it is particularly important to elaborate on one of the EIR's key deficiencies – the failure to adequately analyze the Project's health impacts.

As the EIR acknowledges, DPM is a well-known health hazard and a known human carcinogen.² Given the Project's proximity to residential uses, the EIR should have included a quantitative analysis of health effects to determine whether the Project would result in a significant health risk impact. Unfortunately, the EIR does not include a health risk assessment ("HRA"), instead asserting that one is unnecessary because the South Coast Air Quality Management District ("SCAQMD") guidance for preparation of HRA's does not require it. FEIR at 2-160.

This reading of the SCAQMD guidance is patently wrong. The SCAQMD guidance states that it "will serve as an interim technical guidance for estimating potential DPM impacts from the following activities: Truck idling and movement (such as, *but not limited to*, truck stops, warehouse/distribution centers or transit centers). . . ." Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, SCAQMD, August 2003, at 1; emphasis added. The guidance does not require HRAs

² See, e.g., Diesel Exhaust/Diesel Particulate Matter -- Hazard Alert, U.S. Department of Labor, Occupational Safety & Health Administration, available at: https://www.osha.gov/dts/hazardalerts/diesel_exhaust_hazard_alert.html; accessed April 28, 2016.

only for the uses listed, as claimed by the EIR. Rather, *any* project involving truck idling and movement is subject to the SCAQMD guidance.

Essentially, the EIR refuses to analyze the Project's impacts on public health. Instead of conducting the analysis, the FEIR includes two pages of added text of attempted justification for the omitted analysis. The FEIR concludes that "it would be speculative to attempt to attribute a specific number or amount of even a portion of the adverse health impacts that potentially may be associated with the PM and ozone concentrations to a single project." FEIR at 5.3-6 to 5.3-8. To the contrary, lead agencies routinely evaluate Projects' impacts to public health, as discussed below. We see no reason that would excuse the City from doing the same.

Construction of the Project would occur over an estimated 7-year build-out period. DEIR at 5.3-13. Typical construction activities for this type of project include demolition of existing structures, grubbing/clearing of on-site areas, excavation and relocation of soil on the site, backfilling and compaction of soils, construction of utilities (i.e., potable water conveyance, wastewater conveyance, storm water drainage facilities, underground electrical, and propane facilities), and construction of proposed buildings. Construction would require operation of all-terrain vehicles, fork lifts, cranes, pick-up and fuel trucks, compressors, loaders, backhoes, excavators, dozers, scrapers, pavement compactors, welders, concrete pumps and concrete trucks, and off-road haul trucks. *Id.* Given the environment, demolition, site preparation, grading, and paving activities would typically occur during the six-month period between May 1 to October 15.³

The EIR estimates that the Project will result in excavation and grading volumes totaling 19,300,000 cubic yards over a 1,196 acre area. DEIR at 5.3-14. It will continue over a period of seven years. This is an enormous amount of earthmoving activity and does not appear even to take into account removal of contaminated soils. Inasmuch as the Project has single family residences nearby, there is simply no excuse for not studying the effect that construction-related air pollution would have on the adjacent community. DEIR at 5.12-11 (nearest sensitive receptor is 150 feet away from the site).

³ Although we note that the Project construction schedule as described in the EIR would run from September until June, spanning the rainy season and exacerbating potential erosion and water quality impacts.

Other agencies recognize the need to conduct quantitative health-risk assessments for construction projects that are smaller than the proposed Project and where sensitive receptors are located much farther away than they would be here for the proposed Project. For example, the City of San Jose conducted a quantitative health risk assessment (“HRA”) for a 190-unit residential project in the city. See Construction Health Risk Assessment prepared by Illingworth & Rodkin, December 2013, prepared for the 505 Lincoln Avenue Residential Project in the City of San Jose, attached as Exhibit D. Illingworth & Rodkin explain the need for the HRA as follows:

Since project construction activities would include demolition, excavation, grading, and building construction that would last longer than 6 months and would be located within 330 feet of residences, a more refined- level study of community risk assessment was conducted. Because the gross analysis indicated that impacts were possible, a refined analysis was conducted to evaluate whether impact would be significant, and if so, identify the project features or mitigation measures that would be necessary to avoid significant impacts in terms of community risk impacts to nearby sensitive receptors (e.g., adjacent residences).

Here, the construction schedule calls for construction activities of longer than 6 months. DEIR at Table 5.3-C at 5.3-12.

The HRA prepared for the San Jose project determined that the incremental child cancer risk at the maximally exposed individual (“MEI”) from project construction would be 8.8 in one million. While this child cancer risk is below the significance threshold of 10 in one million, the Harmony Project is much larger than the San Jose project. Consequently, the evidence of the Project’s potential to result in a significant risk of cancer, especially for children, puts the responsibility for preparing an HRA on the City. As the HRA for the San Jose project shows, other agencies recognize the need to evaluate of health risks for residential projects that are smaller than the Harmony Specific Plan Project; Highland should meet, not dodge, this standard.

Given the Project’s 7-year construction timeframe and the substantial DPM emissions from the Project’s construction period, the EIR’s failure to prepare an HRA constitutes a fatal flaw. Because the EIR fails to analyze the Project’s construction-related health effects, it fails to disclose the environmental consequences of this Project to the potentially affected community. In this regard the EIR fails to fulfill CEQA’s paramount goal: to inform the public of the actual and specific environmental

consequences of the proposed Project. *Citizens of Goleta Valley*, 52 Cal.3d at 564. The Project cannot be approved until the EIR must be revised to include this analysis,

D. The EIR's Traffic Analysis is Incomplete.

As discussed above, the Project's truncated project description has substantial ramifications for the environmental analysis. In particular, the EIR presents an incomplete and inaccurate analysis of the Project's traffic impacts because it omits key information: it does not include the proposed new Mill Creek Bridge, which will alter circulation of project-related traffic off-site, and it ignores project-related traffic leaving and entering the site, such as truck trips associated with hauling contaminated soils to disposal sites. Inasmuch as the transportation analysis relies on the Project Description, any underestimate of changes to roadway infrastructure and vehicular trips necessarily results in an underestimate of traffic impacts. Once the City corrects the Project Description, it must revise the traffic impact analysis.

E. The EIR Fails to Adequately Evaluate the Project's Contribution to Climate Change.

The EIR's analysis of greenhouse gas ("GHG") emissions attributable to the Project is shockingly deficient. Likewise, its conclusion that there will be no significant GHG impacts related to the Project—which consists of more than 3,400 homes where residents will drive more than 155 million miles every year—is inconceivable. DEIR at 5.7-54.

By any rational measure, the Project will have a significant impact related to climate change. The EIR concludes otherwise only because it measures the significance of the Project's impacts using a series of assumptions that the Supreme Court has disapproved, ignores that the Project conflicts with various relevant GHG-reduction policies, and uses other flawed analyses. Because the EIR concludes that the Project will not have a significant climate-related impact, it fails to adopt feasible mitigation. Because the Project's impact will actually be significant, the EIR must identify and include adequate mitigation measures to reduce or avoid the Project's contribution to global warming.

The EIR presents the same defective analysis that the California Supreme Court recently rejected in *Center for Biological Diversity v. California Dep't of Fish & Wildlife* (2015) 62 Cal.4th 204 ("*Newhall Ranch*"): it assumes that a new project like Harmony is consistent with the statewide greenhouse gas reduction goals of AB 32 (the California Global Warming Solutions Act of 2006. Health and Safety Code sections

38500 et seq.), as long as the Project reduces its emissions by the same proportion that the entire state must reduce its emissions. The *Newhall Ranch* decision unequivocally rejects this approach. The EIR plainly does not meet its obligations under CEQA or California's greenhouse gas statutes and policies.

1. The EIR's Significance Threshold for Measuring GHG Emissions is Flawed.

Determining whether or not a project may result in a significant adverse environmental effect is a key aspect of CEQA. CEQA Guidelines § 15064(a) (determination of significant effects “plays a critical role in the CEQA process”). Under CEQA, agencies use thresholds of significance as a tool for judging the significance of a Project's impacts. CEQA Guidelines §§ 15064.4, 15064.7. The Resources Agency recently updated the CEQA Guidelines by adopting recommendations on how agencies may analyze the significance of a project's GHG emissions. One of the factors for determining the significance of Project GHG impacts in the Guidelines is whether the project “may increase or reduce greenhouse gas emissions compared to the *existing environmental setting*.” CEQA Guidelines § 15064.4(b)(1) (emphasis added). The Guidelines also instruct the lead agency to determine “[t]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.” Guidelines § 15064.4(b)(3).

Under *Newhall Ranch*, an EIR is allowed to compare a project's expected GHG emissions to the emissions the project would cause without recent regulations aimed at meeting the AB 32 goals—the hypothetical “business as usual” (“BAU”) scenario. But it may not simply assume that because statewide emissions must shrink by 28.5% to meet those goals, a project that is 28.5% below the BAU scenario is automatically consistent with AB 32. To meet the AB 32 goals, new housing projects like Harmony may need to make deeper reductions below BAU, because existing emissions sources- the installed base of housing and other sources- will not be able to make the 28.5% reduction.

The EIR must therefore choose a threshold reduction level for the project that is factually related to achieving the statewide goals, and that choice must be supported by substantial evidence. *Newhall Ranch*, 62 Cal.4th at 12. The *Newhall Ranch* Court's summary of that EIR's failings applies equally to the Harmony Specific Plan EIR:

At bottom, the EIR's deficiency stems from taking a

quantitative comparison method developed by the Scoping Plan as a measure of the greenhouse gas emissions reduction effort required by the state as a whole, and attempting to use that method, without consideration of any changes or adjustments, for a purpose very different from its original design: To measure the efficiency and conservation measures incorporated in a specific land use development proposed for a specific location. *Id.*

This is exactly what the Harmony EIR does in evaluating whether the Project would conform with the GHG reduction targets set forth in the Scoping Plan. According to the EIR, preexisting state policies would reduce the Project's emissions by more than 28.5%⁴ below BAU thereby reducing the Project's GHG emissions to an insignificant level. But there is no evidence supporting the EIR's assumption that new development that is 28.5% (or 16%) below BAU will help achieve California's emission reduction objectives. This missing evidence is precisely what *Newhall Ranch* requires. *Id.* at 228. The EIR's significance determination mistakenly presumes, without any support, that emission reduction expectations are the same for existing and new sources of emissions to meet targets. It is in plain violation of the *Newhall Ranch* requirement for a factual connection between the threshold and the State's ability to meet the goals.

The available evidence stacks strongly against the EIR's naked assumptions. Opportunities for reducing emissions from the installed base are more limited and present greater challenges, expectations for minimizing emissions from new development, through energy efficiency, renewables, increased density, mixed use and siting close to transit, should be greater than that of existing development, where emission reduction opportunities may be more constrained. *Id.* at 262.

As recognized by the California Air Pollution Control Officers Association ("CAPCOA")⁵ in its CEQA & Climate Change White Paper (attached as Exhibit E), "greater reductions can be achieved at lower cost from new projects than can be achieved

⁴ The EIR uses the former ARB reduction target of 28.5%; the updated ARB reduction target is to reduce statewide GHG emissions by 16% below 1990 levels.

⁵ As explained on its website, CAPCOA "is a non-profit association of the air pollution control officers from all 35 local air quality agencies throughout California. CAPCOA was formed in 1976 to promote clean air and to provide a forum for sharing of knowledge, experience, and information among the air quality regulatory agencies around the State."

from existing sources.” Exhibit E at p. 33. Similarly, as one of its reasons for finding that a proposed 29% below BAU threshold of significance “will not withstand legal scrutiny,” the Attorney General’s Office noted that “it seems that new development must be more GHG efficient than this average, given that past and current sources of emissions, which are substantially less efficient than this average, will continue to exist and emit.” Letter from Special Assistant Attorney General Clifford L. Rechtschaffen to Dave Warner re District Policy And Guidance Document For Addressing GHG Emission Impacts, dated December 21, 2009, attached as Exhibit F. at 3.

Accordingly, there is no scientific or factual basis supporting the EIR’s unsubstantiated opinion that new development that is 28.5% (or 16%) below a hypothetical BAU baseline is consonant with California’s near-term emission reduction objectives. *See* Pub. Res. Code § 21082.2(c) (“[a]rgument, speculation, unsubstantiated opinion or narrative, [and] evidence which is clearly inaccurate or erroneous” does not constitute substantial evidence); *see also* *CBD*, 62 Cal.4th at 263; *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal. App. 4th 1, 17 (“[C]onclusory statements do not fit the CEQA bill.”). By simply assuming that emission reduction targets would be achieved because Project emissions are purportedly 16% below a hypothetical “business as usual,” the EIR’s significance criteria does not reflect “careful judgment . . . based to the extent possible on scientific and factual data.” CEQA Guidelines § 15064(b).

As explained by the Supreme Court, the EIR’s threshold of significance must provide an appropriate efficiency goal for new development, backed by substantial evidence. The EIR does not do so. It does not meet its obligations under CEQA and cannot legally support approval of the Project.

Moreover, based on the models in the EIR, there is no chance that the Project will meet this threshold. A legally adequate analysis will show it to have a significant impacts, requiring mitigation. Alternatively, the EIR should compare the Project’s projected emissions in 2020 with those in the Project area in 1990. If the projected emissions would exceed those in the Project area, the Project would have a significant impact for which mitigation similarly must be identified.

2. The EIR’s Analysis of Post-2020 GHG Emissions is Deficient.

The EIR makes no attempt to analyze the Project’s GHG impacts after 2020 despite the fact that the Project might not even be built out by 2020 and certainly will continue in operation for many years after that date. This approach is unacceptable. According to the Supreme Court,

[O]ver time consistency with year 2020 goals will become a less definitive guide, especially for longterm projects that will not begin operations for several years. An EIR taking a goal-consistency approach to CEQA significance may in the near future need to consider the project's effects on meeting longer term emissions reduction targets.

CBD, 62 Cal. 4th at 260. The EIR makes no attempt to disclose the project's emissions for any year past 2020.

In addition to properly analyzing consistency with the reduction goals set under as described above, the EIR must analyze the Project's consistency with Executive Orders S-3-05 and B-30-15. Executive Order ("EO") S-3-05 also sets forth state policy related to GHG reduction, including that it is the policy of the state to reduce GHG emissions to 80% below 1990 levels by 2050. EO B-30-15, signed by the Governor in 2015, establishes a new interim target to reduce GHG emissions by 40 percent below 1990 levels by 2030. The EIR acknowledges EO S-3-05 and B-30-15, but never analyzes the Project's consistency with either directive. DEIR at 5.7-57. Instead, the EIR states that "additional GHG-reducing control measures are likely to be introduced and implemented over time" and concludes that "some of these measures are likely to reduce the Project's GHG emissions." *Id.* This is wishful thinking, not consistency analysis.

The EIR attempts to deflect scrutiny by asserting that the Executive Orders propose a goal and are not a mandate. Regardless of whether this is an accurate characterization, it is irrelevant under CEQA and the EIR's own standard of significance. The EIR states that the Project's GHG emissions will be significant if they "conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases." DEIR at 5.7-7. The Executive Orders are undoubtedly "plans, policies, or regulations," and they were plainly "adopted for the purpose of reducing the emissions of greenhouse gases." By its own terms, the EIR must consider the Project's consistency with these orders.

Other agencies have been readily able to utilize the Executive Orders as thresholds of significance for long-term projects. For example, likely in response to a Court of Appeal decision on the subject, the San Diego Association of Governments ("SANDAG") has established that its Regional Transportation Plan/Sustainable Communities Strategy ("RTP/SCS") would have a significant impact if it would "[b]e inconsistent with the State's ability to achieve the Executive Order B-30-15 and S-3-05 goals of reducing California's GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050." Exhibit G at pp. 4.8-33; *see Cleveland*

National Forest Foundation v. SANDAG (November 24, 2014) 180 Cal.Rptr.3d 548 (Review Granted, 343 P.3d 903).

The SANDAG RTP/SCS EIR evaluated that project's impacts by calculating a 40 percent and 80 percent reduction from the region's 1990 emissions and utilizing that as a target reference point for the RTP. It then compared the region's expected GHG emissions in the years 2035 and 2050 to the emissions that would be necessary to meet the EO trajectories. It included charts showing that the Plan will not come close to meeting the EO goals. It concluded: "Because the total emissions in the San Diego region of 25.5 MMT CO₂e in 2035 would exceed the regional 2035 GHG reduction reference point of 14.5 MMT CO₂e (which is based on EO-B-30-15 and EO-S-3-05), the proposed Plan's 2035 GHG emissions would be inconsistent with state's ability to achieve the Executive Orders' GHG reduction goals. Therefore, this impact (GHG-4) in the year 2035 is significant." Exhibit G at pp. 4.8-35. It has a similar conclusion for the year 2050 goal. This analysis is easily adaptable to the Harmony Project's emissions.

The EIR's failure to compare the Project's emissions against long-term GHG emission reduction policies such as EO S-3-05 and B-30-15 is unlawful. The City has access to state-wide reduction goals, which reflect the levels that climate scientists have concluded are needed to provide a 50-50 chance of limiting global average temperature rise to 2°C above pre-industrial levels. The EIR should reveal the severity of the impacts of adopting a long-term development plan that contravenes these reduction goals. In other words, the public should understand just how far the Project would set the area off course from state-wide reduction goals.

3. The EIR Fails to Analyze and Adopt All Feasible Mitigation.

Because the EIR concludes, without the required evidentiary support, that the Project's GHG-related impacts will be less than significant in 2020, the EIR does not identify any mitigation measures related to GHG impacts (beyond those already required under State law). Further, the EIR ignores the issue of mitigation after 2020. If the EIR had properly utilized and applied GHG thresholds as discussed above, it would demonstrate that the Project's actual GHG emissions would cause a significant impact throughout the life of the Project. The EIR must therefore identify, and the City must adopt, all feasible and effective measures to reduce or avoid that impact. Numerous agencies and organizations have documented other types of mitigation that are appropriate and feasible for commercial development projects. The City should adopt all feasible mitigation to reduce the Project's true GHG impacts. As just a few examples, the EIR should evaluate the following additional measures for the Project:

- Use low or zero-emission vehicles, including construction vehicles.
- Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.
- Create local “light vehicle” networks, such as neighborhood electric vehicle (“NEV”) systems.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- Provide zero emission shuttle service to public transit and Project buildings/amenities.
- Limit the hours of operation of outdoor lighting.
- Reduce the use of pavement and impermeable surfaces.
- Require the installation of on-site, distributed generation of low carbon, renewable energy sources such as photovoltaic panels to reduce electricity load.

There are additional guidance documents that provide a full suite of GHG mitigation measures. The City must review and consider all of the measures listed in these documents in a recirculated EIR, and it must adopt all feasible measures in order to reduce the Project’s impacts to a level below significance, or as much as feasible:

- Governor’s Office of Planning and Research. 2008. Technical Advisory. CEQA AND CLIMATE CHANGE: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, at Attachment 3, “Examples of GHG Reduction Measures.” Available: <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>.
- California Air Pollution Control Officers Association (CAPCOA). 2008 (January). CEQA & Climate Change. Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act (attached as Exhibit E), at page 79, “Mitigation Strategies for GHG.”

- California Air Pollution Control Officers Association (CAPCOA). 2010 (August). Quantifying Greenhouse Gas Mitigation Measures. A Resource for Local Government to Assess Emission Reduction from Greenhouse Gas Mitigation Measures. Available: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- Attorney General of the State of California. 2008 (December). The California Environmental Quality Act. Addressing Global Warming Impacts at the Local Agency Level. Available: http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf.

These documents, in addition to providing lists of mitigation measures and design features maintained by other organizations, cover a wide range of topics, including (1) land use, urban design, transportation measures; (2) shade and sequestration, including using trees to shade buildings; (3) energy conservation; (4) water conservation; and (5) carbon offset credits. The City must consider all of these types of mitigation measures for the Project's significant GHG impacts.

Other agencies routinely require mitigation for commercial and mixed-use development projects that include requirements to use renewable energy or install on-site solar power. For instance, Riverside County has previously required large development projects to meet the following standard: "80 percent of residential units shall meet 60 percent of their baseline demand power energy needs with renewable energy; and 80 percent of commercial building square footage shall meet 40 percent of their baseline demand power energy needs with renewable energy." Excerpts of Travertine Point Specific Plan Conditions of Approval, attached as Exhibit H. If the applicant cannot show that the local electricity provider is meeting these standards, than renewable energy must be provided from on-site sources. *Id.*

Likewise, the building industry is rapidly advancing in its ability to offer energy efficient homes. For example, Shea Homes now offers a zero-energy home that offsets all of the home's energy use by using efficient building techniques and having solar power on the roof. *See* Exhibit I. Courts have made clear that "if [a] project can be economically successful with mitigation, then CEQA requires that mitigation" *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599-600. Given that Shea has sold more than 1,000 zero-energy homes, and that the technology for providing solar power has become much more affordable over the past few years, it is certainly feasible for the developer here to provide zero-energy homes to mitigate the Project's greenhouse gas impacts. The EIR has offered no evidence to the contrary, nor,

apparently, even preliminarily explored the feasibility of such mitigation. It is therefore legally inadequate.

Finally, the best mitigation would be to disapprove this Project and adopt a city-centered, infill alternative that conforms to actual smart growth principles. This would provide needed housing while offering numerous benefits to the City and the State, including preservation of important wildlife habitat and open space land, the rural character of the Project area, reduced vehicle miles traveled (and concomitant reductions in greenhouse gas and other air pollutant emissions), shorter commutes, and less traffic on rural roads.

F. The EIR Fails to Evaluate the Project's Energy Impacts.

CEQA requires agencies to analyze whether their projects will result in the wasteful or inefficient use of energy. Pub. Res. Code § 21100(b)(3); CEQA Guidelines, Appendix F. “Under CEQA, an EIR is ‘fatally defective’ when it fails ‘to include a detailed statement setting forth the mitigation measures proposed to reduce wasteful, inefficient, and unnecessary consumption of energy.’” *Cal. Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 209 (quoting *People v. County of Kern* (1976) 62 Cal.App.3d 761, 774). In order to demonstrate that a project will not result in the wasteful use of energy, agencies must show that the project has decreased per capita energy consumption, decreased reliance on fossil fuel use, and increased reliance on renewable energy sources. *Id.*

The Harmony Specific Plan and its EIR repeatedly claim that the Project incorporates sustainable design strategies and implements all measures prescribed in the 2010 California Green Building Standards Code, California Code of Regulations, Title 24. *See e.g.*, Harmony Specific Plan at Table 10.1, p. 12-8; DEIR at 3-24; FEIR at 2-428. However, these project elements do not excuse the City from conducting the mandated analysis. Moreover, Title 24 does not address many of the considerations required under Appendix F of the CEQA Guidelines, such as whether a building should be constructed at all, how large it should be, where it should be located, whether it should incorporate renewable energy resources, or anything else external to the building's envelope. Put simply, the building code does not address the energy impacts of a project intended to transform open space into a new, suburban development. Thus, including the Building Code's measures is not a substitute for the mandatory Appendix F analysis. This omission renders the EIR deficient and the City's certification of the document would be unlawful.

Moreover, the EIR uses outdated Title 24 standards. The most recently updated standards went into effect as of July 1, 2014. Thus, while the EIR touts how the Project's homes will meet or exceed Title 24 standards, the Project would not comply with current standards. For example, the 2013 Title 24 standards *require* all residential homes to be "solar-ready."⁶ But the Project does not propose to construct buildings that are solar ready. Harmony Specific Plan at Table 10.1. Accordingly, by committing to comply with 2010 Title 24 standards, the Project is not mitigating its energy impacts; it is not even complying with the law. In fact, Title 24 is once again being updated this year, with new standards expected to go into effect on January 1, 2017.⁷ Accordingly, by the time any construction on this Project gets started, Title 24 efficiency standards may be more stringent than the Project now requires, even with its commitment to exceed the 2010 standards. At the least, the City should require the developer to apply the standards that are in effect when the first building permits are issued for each phase of the development.

G. The EIR's Analysis of Impacts to Biological Resources Is Inadequate

The FEIR fails to respond to pertinent comments on significant impacts to biological resources. Instead, the FEIR dismisses comments by reiterating claims made in the DEIR without supporting facts or substantive analysis, offers conclusory statements without a factual or legal foundation, disregards feasible alternatives and mitigation measures, offers deferred mitigation measures rather than adequate actions to reduce the Project's environmental consequences, and in many cases, dodges the comments by offering "responses" that fail to address the point raised by the commenter.

The City dismisses comments from experts with the United States Fish and Wildlife Service ("USFWS" or "Service") regarding the Project's significant impacts to endangered species and their habitat. For example, USFWS, the agency with jurisdiction over the conservation, development, and management of the nation's fish and wildlife resources, submitted multiple comment letters and most recently commented that "[t]he Service does not feel their concerns regarding the analysis of impacts to biological resources have been adequately addressed in the FEIR" and recommends that it not be certified as written. *See* Letter from Kennon Corey, US Fish & Wildlife Service Assistant Field Supervisor, to Kim Stater, City of Highland City Planner, dated April 29, 2016 at p. 1, and similar statements at p. 10, attached as Exhibit J. The Service also indicated that

⁶ See http://www.energy.ca.gov/title24/2013standards/2013-03-12_Changes_for_the_2013_Update_to_Building_Energy_Efficiency_Standards.pdf

⁷ See <http://www.energy.ca.gov/title24/2016standards/prerulemaking/>.

they disagree that the Project's impacts to biological resources are less than significant and they recommend the City develop and adopt alternatives to reduce its impacts on protected biological resources. *Id.* at 1.

The Service further commented that EIR includes incomplete and inadequate analysis of the Project's impacts on critical habitat for the federally endangered San Bernardino kangaroo rat, Golden eagles, mountain yellow-legged frog, Santa Ana sucker, and Coastal California gnatcatchers, as well as its impacts on wildlife corridors. *Id.* at 2 through 7. In addition, the Service has made clear that the Project will significantly impact other listed species, such as least Bell's vireo, southwestern willow flycatcher and other wildlife due to edge effects. *Id.* at 4. Despite the Service's experience and expertise regarding these and other resources, the EIR dismisses the agencies comments out of hand.

Moreover, because the EIR fails to identify impacts to the biological resources as significant, it fails to adequately mitigate impacts. An EIR is inadequate if it fails to identify feasible mitigation measures. *Lotus v. Department of Transportation* (2014) 223 Cal. App. 4th 645; *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79. Here, the FEIR ignores mitigation consistent with USFWS recommendations. To provide one example, the Service recommends acre-for-acre habitat replacement to protect habitat within an important migration corridor. FEIR at 5-428. The FEIR acknowledges that the measure is feasible, but dismisses it as unnecessary, based on its erroneous conclusion that impacts to wildlife movement are less than significant. *Id.*

In sum, until the EIR adequately analyzes these significant impacts and identifies measures to minimize the impacts, the City has simply failed to analyze the full range of impacts to biological resources facing the project. The EIR therefore does not provide the substantial evidence necessary to claim that biological resources impacts are less than significant.

III. The Harmony Specific Plan is Inconsistent with Regional Plans

A. The Project is Inconsistent with the 2012 Regional Transportation Plan/Sustainable Community Strategy

The preeminent goal and performance target of a Regional Transportation Plan/Sustainable Community Strategy ("RTP/SCS"), as mandated by SB 375, is to reduce per-capita CO2 emissions from cars and light-duty trucks by 8 percent below 2005 by 2020 and 13% below 2005 per capita emissions levels by 2035. Exhibit K at xiii.

The EIR claims that implementation of the Specific Plan would be consistent with the Southern California Association of Governments (“SCAG”) 2012 RTP/SCS. But it discloses that the proposed Project will result in a substantial increase of vehicle miles travelled (“VMT”) when compared with baseline conditions. DEIR at Table 5.7-J at 5.7-55. This increase in VMT is in direct conflict with RTP/SCS’s policies to reduce CO2 by reducing VMT. Moreover, SCAG approved the updated 2016-2040 RTP/SCS in April of this year. The Harmony EIR fails to analyze the Project’s consistency with the updated RTP/SCS, even though a draft of it was available prior to publication of the Harmony FEIR.

Instead of acknowledging the Specific Plan’s direct conflict with RTP/SCS’s fundamental goal, the EIR suggests that the Project is consistent with the RTP/SCS because the Project includes a mix of housing types and provides a greenway for pedestrian and bicycle use. Given the size of the project, the City has an opportunity and a responsibility to ensure that the development is a model of sustainable design and that it is consistent with the RTP/SCS for the area. The Specific Plan takes the opposite approach, with its sprawling residential development of low density single family homes with a minimal amount of commercial uses. While the Specific Plan boasts of incorporating sustainable design strategies, the document does little more than require compliance with the 2010 California Green Code. Harmony Specific Plan at 10-4.

The EIR analysis pays lip service to the RTP/SCS, but provides little evidence of compliance with its provisions. For example, the RTP/SCS Goal G2 and G8 call for maximizing mobility and accessibility for people and goods and for encouraging land use and growth patterns that facilitate transit and non-motorized transportation. DEIR at 6-5 and 6-7. The EIR’s analysis belies the Projects inconsistency with these policies when it states the Project creates a “safe environment for pedestrian movement and bicycle traffic” and highlights that “off-street trails connect residential areas to open space and off-site trails and recreational amenities.” DEIR at 6-5. The EIR repeatedly touts the greenway included as part of the project as facilitating alternative transportation and reducing VMT. Specific Plan at 1-8, 7-4, 12-8; DEIR at 3-24, 3-28, 5.3-10, 5.10-63; and FEIR at 2-367, 2-428, and 2-511. But in reality the site’s paths and greenway will function largely as recreation facilities: the Project includes only a minimal amount of commercial development. The nearest off-site regional services are six to 12 miles away and the only mass transit facilities available to Harmony residents will be two bus stops for County bus service. Specific Plan at 2-16. Therefore, contrary to the EIR’s conclusion that the Project complies with Goal G2, the Project perpetuates a model of sprawling residential development at the edge of the City that does little to provide mobility and accessibility for residents.

The Project is also inconsistent with RTP Goal G6 calling for jurisdictions to “Protect the environment and health for our residents by improving air quality and encouraging active transportation.” The EIR analysis relies again on the fact that the Project includes a “pedestrian friendly environment” and sidewalks. DEIR at 6-6. These project elements will undoubtedly provide a pleasant opportunity for residents to recreate on-site, but they do little to address transportation needs to access employment and regional services. “Active transportation” refers to peoples’ ability to walk, bicycle, use mass transit or some combination of the three as transportation rather than recreation. The site’s location and design will ensure that the majority of residents will continue to use automobiles for virtually all of their transportation needs, thus contributing to worsening air quality. In addition, as discussed in more detail below, the Project’s sustainable design strategies do not begin to go far enough to reduce the Project’s significant contribution to air quality and greenhouse gas impacts.

B. The Project is Inconsistent with SCAG’s Compass Growth Visioning Program

SCAG’s Compass Growth Visioning Program, also known as the Compass Blueprint, has been a model for integrating land use and transportation planning and turning regional vision into local reality. The Compass Blueprint is guided by four core principles—Mobility, Livability, Prosperity and Sustainability. The Project is inconsistent with Principle 1 of the Compass Blueprint, which includes four elements as follows:

- Encourage transportation investments and land use decisions that are mutually supportive;
- Locate new housing near existing jobs and new jobs near existing housing;
- Encourage transit-oriented development; and
- Promote a variety of travel choices.

Contrary to these principles, the Project locates housing away from existing transit and existing jobs, which is likely to burden the County bus system rather than support it, and, as explained earlier in this letter, does little to promote a variety of travel choices. Despite the fact that the proposed Project complies with none of these principles, the EIR concludes the opposite. However, the EIR provides no evidence of compliance. Instead, the EIR repeats the mantra that the greenway and sidewalks included as part of the project will provide pedestrian and bicycle connectivity within the Project area. DEIR at 6-8.

The Project is also inconsistent with Principle 4 of the Compass Blueprint which calls on jurisdictions to do the following (among other things):

- Preserve rural, agricultural, recreational and environmentally sensitive areas; and
- Focus development in urban centers and existing cities.

In contrast to these principles, the proposed development would develop an area held in agricultural and open space for centuries. It would impact critical habitat for the federally endangered Kangaroo rat, fill wetlands, and construct Project facilities within the 100-year floodplain. DEIR at 5.9-22 and FEIR at 5.9-28. The development is far from an urban center at the very edge of the City. Yet, despite obvious inconsistencies between the Compass Blueprint provisions and the Project, the EIR concludes the Project is consistent. DEIR at 6-11.

IV. Conclusion

For all of the foregoing reasons, we respectfully submit that the City cannot lawfully approve the Harmony Specific Plan. The EIR is deeply flawed and fails to inform the public of the full impacts of the Project. It can support neither the findings required by CEQA nor a determination of General Plan consistency. In addition, the City must adopt more mitigation, and more specific mitigation, to address the Project's numerous, significant impacts. We urge the City Council to exercise its discretion and deny this ill-advised Project.

Kim Stater
June 27, 2016
Page 28

Best regards,

SHUTE, MIHALY & WEINBERGER LLP



Gabriel Ross



Carmen J. Borg, AICP
Urban Planner

cc: Greenspot Residents Association

Exhibits:

- Exhibit A: Report prepared by Baseline Environmental Consultants
- Exhibit B: Agency for Toxic Substances and Disease Registry, Public Health Statement: Perchlorates
- Exhibit C: United States Department of Defense, Report to the Congress: Perchlorate in the Southwestern United States (excerpts)
- Exhibit D: Construction Health Risk Assessment prepared by Illingworth & Rodkin, December 2013
- Exhibit E: California Air Pollution Control Officers Association, CEQA & Climate Change White Paper, January 2008
- Exhibit F: Letter from Special Assistant Attorney General Clifford L. Rechtschaffen to Dave Warner re: District Policy And Guidance Document For Addressing GHG Emission Impacts, dated December 21, 2009
- Exhibit G: San Diego Association of Governments, 2050 Regional Transportation Plan/Sustainable Communities Strategy (excerpts)
- Exhibit H: County of Riverside, Travertine Point Specific Plan Conditions of Approval (excerpts)
- Exhibit I: SF Business Times, "Zero-net-energy homes: More feasible, still rare," March 29-April 4, 2013 Article
- Exhibit J: Letter from Kennon Corey, US Fish & Wildlife Service Assistant Field Supervisor, to Kim Stater, City of Highland City Planner, re: Final Environmental Impact Report for the Harmony Specific Plan Project, Highland, California, dated April 29, 2016
- Exhibit K: Southern California Association of Governments, 2012 Regional Transportation Plan/Sustainable Community Strategy (excerpts)

EXHIBIT A



27 June 2016
16218-00

Ms. Carmen Borg
Shute, Mihaly, and Weinberger
396 Hayes Street
San Francisco, CA 94102

Subject: Review and Comment on Hydrology and Water Quality Analysis, Harmony Specific Plan Draft and Final Environmental Impact Report

Dear Ms. Borg:

At your request, BASELINE Environmental Consulting (“BASELINE”) has reviewed portions of the Harmony Specific Plan Draft Environmental Impact Report (“DEIR”). Specifically, we reviewed the Hydrology and Water Quality section and, in order to provide a meaningful context, we also reviewed the Project Description. We also reviewed the Final Environmental Impact Report (“FEIR”). Our comments are presented below. Reference to the “EIR” indicates both the DEIR and the FEIR.

PROJECT DESCRIPTION

The Project Description does not include adequate details of the design of the hydrologic/hydraulic features of the project or storm drainage infrastructure to allow the reader of the EIR to understand these important project elements. Instead the EIR defers to the future preliminary designs of these project elements. The following is the sum total of information included the Project Description of the EIR on drainage, flooding, stormwater management (EIR page 3-22):

The Harmony Specific Plan proposes a comprehensive drainage system intended to collect, convey and deliver storm flows in accordance with City requirements. The primary goal of the storm water management system is to prevent flooding and protect property by providing safe, effective site drainage. The Project site contains 8 tributary areas that are impacted by the Specific Plan ranging in size from 26 acres to 482 acres. The Project site generally receives storm water runoff from the foothills lying to the north and northeast. The runoff is conveyed through the site and ultimately reaches the Santa Ana River to the west or Mill Creek on the south.

This level of description is inadequate even for a programmatic level CEQA document, but the Harmony Specific Plan EIR purports to be a project-level EIR (i.e., based on review of the EIR, additional CEQA review for projects under the Specific Plan would not occur). This brief discussion falls far short of the detail necessary to describe such a large and complex project. The statement that the “*primary goal of the storm water management system is to*

Ms. Carmen Borg
27 June 2016
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prevent flooding and protect property by providing safe, effective site drainage” is not followed up by describing secondary goals, which the reader is left to imagine. For example, the Project Description fails to describe the proposed project’s approach to stormwater management (water quality treatment and hydromodification mitigation features). These stormwater management design features are critical for a project-level analysis because they require space within the site-plan to be constructed and maintained to effectively address National Pollutant Discharge Elimination System (NPDES) compliance. The reader has no idea whether these required features are included in the project (and thus analyzed throughout the EIR) or just ignored. This lack of detail regarding the drainage design not only represents inappropriate deferral of needed analysis, it makes it impossible for the reader of the EIR to understand the whole of the project.

The Project Description mentions a “conceptual master drainage plan,” as follows (EIR page 3-22):

The Harmony Specific Plan includes a conceptual master drainage plan. The conceptual master drainage plan generally consists of inlets, outlets, underground conduits and soft bottom channels.

But does not provide a specific reference to the document or include any of the pertinent design elements or recommendations of this plan. We are uncertain whether a conceptual master drainage plan has even been prepared. The only document that addresses drainage issues at all included with the EIR is the *Hydrology and Sedimentation Technical Study*. This *Hydrology and Sedimentation Technical Study* describes the proposed drainage concept as follows:

The Harmony Specific Plan proposes a comprehensive drainage system intended to collect, convey, and deliver storm flows in accordance with City of Highland requirements. The primary goal of the storm water management system is to prevent flooding and protect property by providing safe, effective site drainage. This is accomplished with the use of underground conduits as well as low-flow swales (part of on-site water quality treatment). A portion of the upstream off-site drainage from the surrounding foothills will be routed in bypass lines through the project site.

This is much too general a discussion to allow the reader to understand how the drainage system will function and where its components will be located. The project proponent should develop a more detailed master drainage plan (Exhibit 5-6 of the Specific Plan is much too general) that could be considered in a revised EIR. The detailed master drainage plan should include conceptual stormwater management and treatment features.

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HYDROLOGY AND WATER QUALITY ANALYSIS

Improper Deferral of Technical Studies

The EIR makes numerous conclusory statements and defers analysis of most issues related to hydrology and water quality. For example, the EIR (page 5.9-26) states:

Mill Creek is not exempt from the HMP requirements; however the flows through this area are not expected to be increased beyond current conditions. (RBF(a), pp. 22-23).

The reference to the RBF *Hydrology and Sedimentation Technical Study* may be referring to this statement (page 22-23):

Addressing the HMP requirements for discharges of the project to Mill Creek may need to be meeting the HMP criteria onsite. Alternatives for addressing HMP requirements for Mill Creek onsite include offsite mitigation stream restoration which are options provided in the Draft San Bernardino HMP. As a final strategy, a site specific study could be conducted once a finalized grading plan is available.

This brief discussion clearly indicates that not even a conceptual drainage plan that would address HMP (hydromodification impacts) has been developed. The statement suggests the project proponents are even uncertain if the hydromodification impact can be managed on-site (hence the option of off-site “mitigation stream restoration”). These mitigation requirements would likely have potential impacts of their own that require full disclosure and analysis. All decisions related to mitigation of hydromodification impacts have been improperly deferred and the EIR reader has no sense for the whole of the project.

Another example of improperly deferred technical studies is related to the proposed increase in impervious surfaces and decrease in groundwater recharge. As stated in Hydrology and Water Quality section of the EIR (page 5.9-25):

Implementation of the proposed Project would increase impervious surfaces across the majority of the Project site. By increasing the percentage of impervious surfaces on the site, there is a potential that less water would percolate into the ground, thereby decreasing groundwater recharge potential and increasing surface runoff. The increased surface runoff will discharge to Mill Creek (Reach 1) and the Santa Ana River (Reach 5). However, as discussed in Section 5.9.4, the increase in imperviousness and resulting increased runoff is addressed in the Project-specific CWQMP by identifying the BMPs to mitigate potential impacts from developing the Project. In addition to incorporating BMPs, the Project includes low-flow swales that promote capture and recharge of storm water (RBF(a), p. 15).

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Thus, the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Therefore, impacts to groundwater recharge would be less than significant without mitigation required.

First, the EIR provides no context as to the importance of the project site as a groundwater recharge area. Foothill areas at range fronts are typically prime recharge areas and the coarse-grained soils that cover much of the site would promote recharge. Second, the EIR provides no analysis of the current rates of recharge or how that recharge might be affected by the proposed increase in impervious cover. Third, the EIR improperly defers to the future and assumes that the Water Quality Management Plan (which is either not yet prepared or not available to the reader of the EIR) would somehow address this potential impact. In other words, the EIR has described a significant impact that would be mitigated by a future study, but states that the impact is less than significant. This violates CEQA by not properly characterizing the impact and deferring mitigation.

A third example of improperly deferred technical studies is related to the potential increases in stormwater discharges that may result in downstream hydromodification. As stated in EIR Mitigation Measure HYD 2:

MM HYD 2: Prior to issuance of any grading permit or recordation of the first tentative tract map (excluding a map for finance or conveyance purposes), a detailed hydrology analysis including basin routing will be prepared to verify flows from the development being released to the existing conveyance channels west of Emerald Street are at or below the existing condition discharges. The analysis will include target discharge values for the 2, 5, 10, 25 and 100-year storm events to be conveyed from the project to the downstream natural conveyances.

This mitigation measure improperly defers conducting this technical analysis without provided specific or appropriate performance standards. “At or below the existing condition discharges” is not specific. Is this total volume, rate, or peak discharges? The *Hydrology and Sedimentation Technical Study* indicates something different (page 22):

*The project would maintain the discharge points onto the downstream properties west of Emerald Avenue. The flows to these discharge points would be maintained at or below the **existing peak discharges** [emphasis added] for the 2, 5, 10, 25, and 100-year discharges.*

Hydromodification mitigation should not focus on limiting peak discharges but should replicate the existing storm hydrograph. According to the Area-wide Urban Storm Water Runoff Management Program San Bernardino County MS4 Permit (Order No. R8-2010-

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0036; NPDES No. CAS 618036), the post-development site hydrology (including runoff volume, velocity, duration, time of concentration) must not be significantly different from predevelopment hydrology for a 2- year return frequency storm. The Santa Ana Regional Water Quality Control Board considers a difference of 5 percent or less to be appropriate. EIR Mitigation Measure HYD 2 does not include necessary technical studies nor adequate performance standards to ensure this impact is properly addressed.

Placing Fill in the Floodplain

The Hydrology and Water Quality section of the EIR (page 5.9-10) indicates that:

According to FEMA, the published Flood Insurance Rate Maps (FIRMS) for the Project site are included on Community Panel No. 06071C8726H. As shown in Figure 5.9-3 – FEMA Flood Hazard Map approximately 68 acres in the southern boundary of the Project site is located within FEMA Zone A (100-year floodplain) designation along Mill Creek.

The EIR (page 5.9-22) also states:

As a part of the Project any proposed residential or commercial land use that is within the Zone A flood plain will be required to be graded and elevated so that they are removed from the flood plain.

Similarly the Hydrology and Sedimentation Technical Study states:

The Harmony Specific Plan identifies land uses adjacent to Mill Creek. Any proposed residential or commercial uses that lie within the Zone A flood plain will be graded and elevated so that they are removed from the flood plain.

The EIR (page 5.9-22) further states that:

The existing approximate elevations of the portions of the proposed residential and commercial planning areas within Zone A are between 2,260 feet and 2,460 feet; however, the Project's grading plan proposes to raise the elevation of these planning areas to between 2,280 feet and 2,480 feet.

Based on an interpretation of the above statement (since the grading plan included as Exhibit 5-7 in the Specific Plan is too general), it appears that grading would raise ground surface elevations within Zone A (the 100-year flood hazard zone) by 20 feet (2,280 – 2,260 = 20; 2,480 - 2,460 = 20). Since neither the Project Description nor the Hydrology and Water Quality section of the EIR indicates the precise area of fill placement that would be required to ensure that all “residential or commercial uses that lie within the Zone A flood plain will be graded and elevated so that they are removed from the flood plain”, we have assumed

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that all 68 acres within the floodplain would be filled. This would result in placement of over 2 million cubic yards of fill in the floodplain.¹

No analysis in the EIR Hydrology or Water Quality section or in the *Hydrology and Sedimentation Technical Study* quantifies the amount of fill that would be placed in the floodplain or describes how it might affect floodplain storage capacity or impact downstream flood-prone areas. Many communities have established “no net fill” in the floodplain regulations for new development because they recognize that placing fill in the floodplain can have cumulative and dramatic consequences on downstream flooding risks. Review of downstream FIRMs indicates that there are numerous downstream communities that have flood-prone areas that could be adversely impacted, including Redlands, Mentone, San Bernardino, and Colton. The EIR fails completely to identify this potential impact and since the issue is not even identified, offers no analysis to demonstrate the severity of the impact or needed measures to mitigate it.

This lack of analysis and mitigation is inconsistent with the City of Highland General Plan Public Health and Safety Element, which states:

*Policy 6.3-3 Require a drainage study be completed by a qualified engineer prior to all proposed development to certify that the proposed development will be adequately protected **and that implementation of the development will not create new downstream flood hazards** (emphasis added).*

A grading plan that clearly demonstrates the location and depth of fill proposed to be placed in the flood plain should be developed and the appropriate hydraulic analysis should be completed to evaluate the potential effects (and the EIR recirculated) so that the public and decision makers can understand the project and its potential impacts.

In summary, the project proposes a large development project and defers essentially all required technical analyses. The details of mitigation measures (and other required actions that are not referred to by the EIR as “mitigation measures”) are not known and the potential secondary impacts of these mitigation measures and actions cannot be evaluated since they have not been developed or provided. The EIR provides no substantive analysis of the hydrology or water quality effects of the project, and provides no substantial evidence for the findings of less than significant for all hydrology and water quality impacts after implementation of the EIR mitigation measures. For a project of this magnitude, a more robust analysis of hydrology and water quality issues must be completed.

¹ 20 feet of fill placed over a 68-acre area would constitute 2,194,000 cubic yards of fill.



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Should you have any questions or comments, please contact us at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Bella", with a long, sweeping horizontal stroke extending to the right.

Bruce Abelli-Amen
Principal
Cert. Hydrogeologist No. 96

BAA:km

EXHIBIT B



PUBLIC HEALTH STATEMENT

Perchlorates

CAS#: 10034-81-8, 7778-74-7, 7790-98-9, 7601-89-0, 7791-03-9

Division of Toxicology and Environmental Medicine

September 2008

This Public Health Statement is the summary chapter from the Toxicological Profile for Perchlorates. It is one in a series of Public Health Statements about hazardous substances and their health effects. A shorter version, the ToxFAQs™, is also available. This information is important because these substances may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present. For more information, call the ATSDR Information Center at 1-800-232-4636.

The Environmental Protection Agency (EPA) identifies the most serious hazardous waste sites in the nation. These sites are then placed on the National Priorities List (NPL) and are targeted for long-term federal clean-up activities. Perchlorates have been found in at least 49 of the 1,581 current or former NPL sites. The possibility exists that the number of sites at which perchlorates are found may increase in the future as more sites are evaluated. In addition, perchlorate exposure has been found to be more widespread, so that waste sites are only a part of the potential perchlorate sources. Other potential sources of exposure include food, some water supplies, fireworks, road flares, consumer products such as bleach and matches, and natural sources.

When a substance is released either from a large area, such as an industrial plant, or from a container, such as a drum or bottle, it enters the environment. Such a release does not always lead to exposure. You can be exposed to a substance only when you come in contact with it. You may be exposed by breathing, eating, or drinking the substance, or by skin contact.

If you are exposed to perchlorates, many factors will determine whether or not you will be affected. These factors include the physical form of the chemical, the dose (how much), the duration (how long), and how you come in contact with them. You must also consider any other chemicals to which you are exposed and your age, sex, diet, family traits, lifestyle, and state of health.

1.1 WHAT ARE PERCHLORATES?

The terms perchlorate or perchlorate anion refer to a negatively charged group of atoms consisting of a central chlorine atom bonded to four oxygen atoms. Perchlorate has the molecular formula ClO_4^- . The terms perchlorates or perchlorate salts refer to the inorganic compounds that contain the perchlorate anion bonded to a positively charged group such as ammonium or an alkali or alkaline earth metal.

Perchlorates can form naturally in the atmosphere, leading to trace levels of perchlorate in precipitation. High levels of perchlorates occur naturally in some locations, such as regions of west Texas and northern Chile.

Perchlorates are colorless and have no odor. Five perchlorates are manufactured in large amounts: magnesium perchlorate, potassium perchlorate, ammonium perchlorate, sodium perchlorate, and lithium perchlorate. Perchlorates are found in the environment in two forms, either as a solid or dissolved in water. If no water is present, as in a drum or on top of dry ground, then they will exist as solids. If water is present, then they will quickly dissolve. When perchlorates dissolve, they separate into two parts. One part has a positive charge, and

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the other part has a negative charge. The part with the negative charge is called the perchlorate anion or just perchlorate. This is the part of the chemical that people look for in the environment or in your body.

Perchlorates are stable at normal temperatures, but when they are heated to a high temperature, they begin to react. Once they begin to react, they produce a large amount of heat. This causes more of the perchlorates to begin reacting, which makes even more heat. This chain reaction process repeats itself over and over until an explosion occurs. Because perchlorates react this way, they are used in rocket motors, fireworks, flares, gunpowder, and explosives.

Because perchlorates can react quickly at high temperatures, people did not expect to find them in the environment. But at normal Earth temperatures, perchlorates react much more slowly. We have learned only recently that perchlorates may last in the environment unreacted for several years.

One of the perchlorate salts, ammonium perchlorate, is produced in large amounts because it is used in rocket fuels. The solid booster rocket on the space shuttle is almost 70% ammonium perchlorate. Perchlorates are also used in explosives. Because perchlorates are used for some military applications, many countries consider the amounts that they make confidential. This is one reason why we do not know the exact amount of perchlorates produced or used in the United States or around the world. As with most chemicals, private companies in the United States are not required to provide information on the amount of perchlorates that they make or use. We also do not know the exact amount of perchlorates brought into

the United States from other countries, although the largest amount probably comes from fireworks. It is important to note that production figures for a limited set of the larger profile of perchlorate applications do not readily translate into environmental release data or accurately characterize the universe of perchlorate uses and potential for release.

Other uses of perchlorates include temporary adhesives, electrolysis baths, batteries, air bags, drying agents, etching agents, cleaning agents and bleach, and oxygen generating systems. Little data are available on the nature, amount, and potential for release of these possible sources of perchlorate to the environment. Perchlorates are also used for making other chemicals. Many years ago, perchlorates were used as a medication in the United States to treat overactive thyroid glands, and they still have some medical uses in the United States and other parts of the world. Perchlorate is also used in treatment of side effects of amiodarone, a drug used in the treatment of cardiac arrhythmias and angina.

1.2 WHAT HAPPENS TO PERCHLORATES WHEN THEY ENTER THE ENVIRONMENT?

Perchlorates are soluble in water and generally have high mobility in soils. This characteristic results in their ability to move from soil surfaces into groundwater (a process called leaching) when they enter the environment. Perchlorates are ionic substances and therefore, do not volatilize from water or soil surfaces. Perchlorates are known to remain unreacted in the environment for long

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periods of time; however, there is evidence that microorganisms found in soil and water may eventually reduce perchlorate to other substances. If perchlorates are released to air, then they will eventually settle out of the air, primarily in rainfall. Perchlorates do not appear to accumulate in animals. Our understanding of perchlorates continues to evolve, and scientific understanding related to perchlorates will continue to be reviewed and re-evaluated when new information becomes available.

Before 1997, it was very hard to measure perchlorates in the environment. In 1997, a much better method was developed, and low levels of perchlorates in water and other media can now be measured. Scientists first began looking for perchlorates near sites where they had been used or discarded, and were surprised when they found them in many other places, including areas where there was no known perchlorate use. They did not think that perchlorates would last very long in the environment because of perchlorate's reactivity. Since then, scientists have been looking for perchlorates in water at more and more places. Perchlorates have recently been found in environmental media such as soil, plants, and animals located in areas where perchlorate was used and released, and in areas where there was no known use or man made releases of perchlorates.

Perchlorates can enter the environment from several sources, both human-made (called anthropogenic) and natural sources. Since perchlorate is used in rockets and certain military applications, the manufacture, use, and disposal of products like rockets and missiles has led to perchlorate being released into the environment. When rockets undergo successful launches, the intense heat leads

to nearly complete reaction of the perchlorate. Therefore, release of perchlorate to the environment often occurs when its intended use does not occur (for example, dismantling and disposal of rockets, accidental release from manufacturing facilities, or unsuccessful rocket launches). In the past, some of these activities resulted in high levels of perchlorate contamination of soil and groundwater at many military installations and rocket manufacturing facilities. Today, great effort is made to minimize the release of perchlorates when rockets or missiles are dismantled or when perchlorates are manufactured. Other human-made sources for perchlorate release into the environment include road-side safety flares and fireworks. Perchlorate has also been detected at low levels as an impurity in certain consumer products such as bleach, and the use and disposal of these products could also lead to releases. Perchlorate is a natural component of a nitrate fertilizer from Chile that was imported and regularly used in the United States for many years. Although the use of this fertilizer has declined in recent years, perchlorate was released directly to soil and plants in areas where this fertilizer was applied. In addition, there appear to be natural sources of perchlorate in the environment. Perchlorates can form naturally in the atmosphere, leading to trace levels of perchlorate in rainfall. Higher than expected levels of perchlorates occur naturally in some locations such as regions of west Texas, New Mexico, and northern Chile. A combination of human activities and natural sources has led to the widespread presence of perchlorates in the environment.

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1.3 HOW MIGHT I BE EXPOSED TO PERCHLORATES?

You may be exposed to perchlorates if you eat food or drink water that contains perchlorates. Perchlorates have been found in food and milk. Some plants, especially leafy green vegetables, have been found to have elevated levels of perchlorate. When water containing perchlorate is used to irrigate the plants, perchlorate is left behind when water evaporates from the leaves of the plants. Cows may eat fodder containing perchlorate and pass them on in their milk. The Food and Drug Administration (FDA) recently published the results of measurements of perchlorate and iodine levels in the food supply. The FDA found that 74% of the foods analyzed had at least one sample in which perchlorate was detected. The perchlorate dietary intake was estimated for 14 different age/gender groups in the United States. The lowest intake range was estimated as 0.08–0.11 $\mu\text{g}/\text{kg}/\text{day}$ (micrograms/kilogram/day) for males aged 25–30 years, and the highest estimated intake was to be 0.35–0.39 $\mu\text{g}/\text{kg}/\text{day}$ for children 2 years old. These levels are not expected to affect human health. The FDA did not recommend any changes in eating habits of Americans based upon the measured levels of perchlorate.

Perchlorates have been found in lakes, rivers, and groundwater wells. Perchlorate has been identified at least once in approximately 4% of over 3,800 community water systems sampled throughout the United States. From 26 different states and 2 territories, the detectable levels averaged 9.8 $\mu\text{g}/\text{L}$ (micrograms/liter) and ranged from the minimum reporting level of 4 $\mu\text{g}/\text{L}$ to a maximum at 420 $\mu\text{g}/\text{L}$.

Additional potential sources of perchlorate may be found if you live near a rocket manufacturing or testing facility, if you live near or work at a factory where they are made, or if you live near a factory that makes fireworks, flares, or other explosive devices. As mentioned earlier, perchlorate is being found in small amounts in areas where it has not been known to be manufactured, used, or released by humans. Exposure to perchlorates at these locations may be possible because natural levels of perchlorates occur in the environment.

Perchlorate has been detected at low levels as an impurity in certain products that are commonly used by humans. Some of these products include bleach and cleaning products that may contain bleach, bottled water, and tobacco products; even some nutritional supplements (vitamins and minerals) have been found to contain perchlorates. However, vitamin and mineral supplements are typically formulated to include iodine, a factor that would provide protection against any possible effect of perchlorate.

1.4 HOW CAN PERCHLORATES ENTER AND LEAVE MY BODY?

Perchlorates can enter the body after you have swallowed food or water containing them. Since they easily dissolve in water, they quickly pass through the stomach and intestines and enter the bloodstream. If you breathe in air containing dust or droplets of perchlorate, it can pass through your lungs and enter the bloodstream. Perchlorates probably do not enter the body directly through the

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skin, but if present on your hands, hand-to-mouth-activity could contribute to oral exposure.

The blood stream carries perchlorate to all parts of the body. Perchlorate is not changed inside the body. A few internal organs (for example, the thyroid, breast tissue, and salivary glands) can take up relatively large amounts of perchlorate from the bloodstream. Perchlorate generally leaves these organs in a few hours.

When perchlorates are swallowed, a small percentage is eliminated in the feces. More than 90% of perchlorate taken in by mouth enters the bloodstream. In the blood, perchlorate passes into the kidneys, which then release it into the urine. The body begins to clear itself of perchlorate through the kidneys within 10 minutes of exposure. Although most of the perchlorate that is taken into the body is quickly eliminated, the presence of perchlorate in many foods and in some drinking water sources means that exposure may continue to occur on a daily basis.

1.5 HOW CAN PERCHLORATES AFFECT MY HEALTH?

The main target organ for perchlorate toxicity in humans is the thyroid gland. Perchlorate has been shown to partially inhibit the thyroid's uptake of iodine. Iodine is required as a building block for the synthesis of thyroid hormone. Thyroid hormones regulate certain body functions after they are released into the blood. Although not demonstrated in humans, it is anticipated that people exposed to excessive amounts of perchlorate for a long time may develop a decreased production

of thyroid hormones. The medical name for this condition is hypothyroidism. Hypothyroidism is usually caused by conditions totally unrelated to perchlorates. In hypothyroidism, the lower amounts of thyroid hormones in your blood cause increases in pituitary hormones that can lead to an increase in the size of the thyroid gland. The medical name for this condition is goiter. Because thyroid hormones perform important functions throughout the body, many normal body activities also are affected by the lower hormone levels. Because perchlorates were known to lower thyroid hormone levels, at one time, perchlorates were given as a drug (more than 400 mg per day, which is many times higher than the doses that people receive from environmental exposures) to treat people with overactive thyroid glands (a condition known as hyperthyroidism). Side effects seen in a small number of treated patients were skin rashes, nausea, and vomiting. A few patients developed severe shortages of blood cells, and some of them died. Healthy volunteers who took approximately 35 mg of perchlorate every day (equivalent to drinking 2 liters of water containing 17 mg/L or 17 parts per million [ppm] perchlorate every day) for 2 weeks or 3 mg daily for 6 months (equivalent to drinking 2 liters of water containing 1.5 mg/L [1.5 ppm] perchlorate every day) showed no signs of abnormal functioning of their thyroid gland. A study of adults in Nevada found that the number of cases of thyroid disease in a group of people who drank water contaminated with perchlorate was no different than the number of cases found in a group of people who drank water without perchlorate. This means that levels of perchlorate in the water were not the cause of the thyroid disease, and a search of the literature confirms no evidence of perchlorate inducing thyroid disease. Two studies of people who worked for years in the production of perchlorate found no

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evidence of alterations in the workers' thyroids, livers, kidneys, or blood. One of these studies estimated that the workers may have taken up about 34 mg of perchlorate per day. A recent study showed that perchlorate levels to which the general population of the United States is exposed via food and drinking water, were associated with changes in thyroid hormone levels in women with low iodine intake, suggesting that the effect of perchlorate in people depends on gender, the length of exposure, and how much iodine the people consume. Further research is recommended to affirm these findings.

As mentioned in the preceding sections, perchlorate is a naturally occurring chemical that has been found in some foods and in some drinking water supplies. Other naturally occurring chemicals, such as thiocyanate (in food and cigarette smoke) and nitrate (in some food), are also known to inhibit iodide uptake. Further studies are needed to completely answer all questions about potential toxicity of perchlorate.

The thyroid gland is also the main target organ for perchlorate toxicity in animals. The thyroid changes caused by perchlorate in animals may lead to tumors in the thyroid after a long period. This has occurred after administering high amounts (928 to 2,573 milligrams perchlorate/kg/day) of perchlorate to the animals. The National Academy of Sciences (NAS) concluded that based on the understanding of the biology of human and rodent thyroid tumors, it is unlikely that perchlorate poses a risk of thyroid cancer in humans. Perchlorates have not been classified for carcinogenic effects by the Department of Health and Human Services (DHHS) or the International Agency for Research on Cancer (IARC). The EPA has determined that perchlorate is not likely to pose a risk of thyroid

cancer in humans, at least at doses below those necessary to alter thyroid hormone homeostasis, based on the hormonally-mediated mode of action in rodent studies and species differences in thyroid function.

Studies in animals also showed that perchlorate did not affect the reproductive organs or the animals' capacity to reproduce. The NAS found that the studies in animals provided important information, but their usefulness to predict whether harmful effects could occur in humans is small.

1.6 HOW CAN PERCHLORATES AFFECT CHILDREN?

This section discusses potential health effects in humans from exposures during the period from conception to maturity at 18 years of age.

Children and developing fetuses may be more likely to be affected by perchlorate than adults because thyroid hormones are essential for normal growth and development. Two studies were conducted of newborn babies and school-age children from an area in Chile where levels of perchlorate in the drinking water were much higher than those detected in some U.S. water supplies due to natural sources of perchlorate. No evidence of abnormal thyroid function was found among the babies or the children. The mothers and the children may have taken approximately 0.2 mg of perchlorate per day in the drinking water. Some studies of newborn babies in areas from Arizona, California, and Nevada, where perchlorate has been found in the drinking water, have not provided convincing evidence of thyroid abnormalities associated with

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perchlorate. A Centers for Disease Control and Prevention (CDC) study of people all over the United States showed that all of the people that were tested had detectable concentrations of perchlorate in their urine, thus making it difficult to find an unexposed comparison group as a control population.

As indicated above, perchlorate has been found in breast milk, so that nursing mothers can transfer perchlorate to their babies. Nevertheless, the beneficial aspects (biological and psychological) of breast-feeding outweigh any risks from exposure to perchlorate from mother's milk, especially if they consume adequate iodine from food and supplements.

Animal studies have shown a low level of thyroid activity in developing animals exposed to perchlorates through the placenta before birth or through the mother's milk after birth. Modern studies of the effects of perchlorate on developing animals have been conducted mostly in rats. Several studies in which pregnant rats were given relatively low amounts of perchlorate have shown that perchlorate can alter the thyroid gland in the newborn animals. This has generally occurred when perchlorate also affected the thyroid of the mothers. In addition, a study suggested an alteration in an area of the brain of pups born to rats. The NAS (2005) indicated that rats are more sensitive to agents that disturb thyroid function than are humans, so the relevance of rat studies in quantitative terms to humans is limited.

1.7 HOW CAN FAMILIES REDUCE THE RISK OF EXPOSURE TO PERCHLORATES?

Although perchlorate is present in food, milk, and drinking water, it is very unlikely that it will be present in the air of the average home or apartment. Perchlorates are found in some consumer products that people use. They are present in highway and marine signal flares, small fireworks, gunpowder, and matches. Storing these items out of the reach of children and not igniting them in a closed environment, such as inside the house or the garage, will decrease the potential for exposure.

Although perchlorate has been detected in a few samples of bottled water, the levels have been very low. Therefore, if you live near a location where perchlorates have been found in drinking water at high levels, using bottled drinking water may reduce the risk to your family, particularly if you drink well water that may contain perchlorate. If you live in one of these areas, prevent your children from playing in dirt and from eating dirt. Make sure your children wash their hands frequently, and before eating. Discourage your children from putting their hands in their mouths or doing other hand-to-mouth activities. You may also contact local public health authorities and follow their advice.

If you work in a factory that makes or uses perchlorates, it is possible to carry perchlorate dust from work on your clothing, skin, or hair. You may then get perchlorate dust in your car, home, or other locations outside of work where family members might be exposed. You should know about this possibility if you work with perchlorates. Taking a

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PUBLIC HEALTH STATEMENT

Perchlorates

CAS#: 10034-81-8, 7778-74-7, 7790-98-9, 7601-89-0, 7791-03-9

Division of Toxicology and Environmental Medicine

September 2008

shower will remove any perchlorate dust from your skin or hair. Washing your clothes will remove any perchlorates dust from them.

1.8 IS THERE A MEDICAL TEST TO DETERMINE WHETHER I HAVE BEEN EXPOSED TO PERCHLORATES?

Methods to measure perchlorate in the body are not routinely available, but perchlorate can be measured in the urine. Because perchlorate leaves the body fairly rapidly (in a matter of hours), perchlorate in the urine can only indicate very recent exposure. Levels of thyroid hormones in the blood can be monitored. Such tests will tell you if your hormone levels are altered, but will not tell you the cause (exposure to perchlorate is only one of many possibilities). Medical tests can also measure the capacity of the thyroid gland to take iodide from the blood to manufacture thyroid hormones. Exposure to perchlorate can decrease this capacity, but so can exposure to other chemicals, as well as iodine deficiency and medical conditions unrelated to any exposure to chemicals.

1.9 WHAT RECOMMENDATIONS HAS THE FEDERAL GOVERNMENT MADE TO PROTECT HUMAN HEALTH?

The federal government develops regulations and recommendations to protect public health. Regulations *can* be enforced by law. The EPA, the Occupational Safety and Health Administration (OSHA), and the Food and Drug Administration (FDA) are some federal agencies that develop regulations for toxic substances. Recommendations

provide valuable guidelines to protect public health, but *cannot* be enforced by law. The Agency for Toxic Substances and Disease Registry (ATSDR) and the National Institute for Occupational Safety and Health (NIOSH) are two federal organizations that develop recommendations for toxic substances.

Regulations and recommendations can be expressed as “not-to-exceed” levels, that is, levels of a toxic substance in air, water, soil, or food that do not exceed a critical value that is usually based on levels that affect animals; they are then adjusted to levels that will help protect humans. Sometimes these not-to-exceed levels differ among federal organizations because they used different exposure times (an 8-hour workday or a 24-hour day), different animal studies, or other factors.

Recommendations and regulations are also updated periodically as more information becomes available. For the most current information, check with the federal agency or organization that provides it. Some regulations and recommendations for perchlorates include the following:

The EPA is currently undertaking efforts to make a determination as to whether or not a national primary drinking water regulation is needed for perchlorate. To make this determination, EPA is evaluating information to more fully characterize perchlorate exposure to determine if regulation of perchlorate in drinking water would represent a meaningful opportunity for reducing risks to human health as required under the Safe Drinking Water Act (SDWA).

The EPA has developed a Reference Dose (RfD) of 0.0007 mg/kg/day for perchlorate. The RfD is an estimate of a daily oral exposure to the human

DEPARTMENT of HEALTH AND HUMAN SERVICES, Public Health Service
Agency for Toxic Substances and Disease Registry



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population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects during a lifetime. This RfD leads to a drinking water equivalent level (DWEL) of 24.5 ppb. EPA calculates the DWEL using the RfD, multiplied by an adult body weight of 70 kg, and divided by a tap water consumption value of 2 L/day. EPA's Office of Solid Waste and Emergency Response has provided guidance for perchlorate that indicates that the RfD and its corresponding DWEL of 24.5 ppb are respectively the recommended "to be considered" (TBC) value and the preliminary remediation goal (PRG) for cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The EPA is also responsible for developing guidelines for controlling hazardous waste from the time it is generated until its ultimate disposal—in effect, from "cradle to grave".

The Department of Transportation (DOT) has designated perchlorate as a hazardous material and limits the quantity that is transported aboard aircraft and vessels. The DOT also provides identification and protective guidance for an emergency response to a transportation incident involving a hazardous material.

The Department of Defense (DOD) must comply with any EPA cleanup standards and processes under all applicable environmental laws and regulations, including CERCLA, the Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), and the SDWA. DOD policy requires the testing of perchlorate when it is reasonably expected that a release has occurred. Specifically, the DOD's policy states that in the absence of federal or state standards, if perchlorate levels in water exceed 24 ppb (current level of

concern for managing perchlorate), a site-specific risk assessment must be conducted. When an assessment indicates that the perchlorate contamination could result in adverse health effects, the site must be prioritized for risk management. DOD will also comply with applicable state or federal promulgated standards, whichever is more stringent. Additionally, DOD established the Emerging Contaminants Directorate in 2006 to help the department proactively approach emerging contaminants to enable a fully informed, risk-based investment decision process that protects human health and DOD operations capabilities; perchlorate is one of seven emerging contaminants included on DOD's Action List.

The FDA has developed Dietary Guidelines that promote health and reduce risk for chronic diseases through diet and physical activity. FDA is not recommending any changes to infants' and children's diets and eating habits based on current perchlorate data. FDA continues to recommend a healthy eating plan, consistent with the Dietary Guidelines for Americans, that emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products; includes lean meats, poultry, fish, beans, eggs, and nuts; and is low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars. Additionally, adequate intake of iodine has previously been recognized as important for healthy thyroid function.

1.10 WHERE CAN I GET MORE INFORMATION?

If you have any more questions or concerns, please contact your community or state health or

DEPARTMENT of HEALTH AND HUMAN SERVICES, Public Health Service
Agency for Toxic Substances and Disease Registry



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environmental quality department, or contact ATSDR at the address and phone number below.

ATSDR can also tell you the location of occupational and environmental health clinics. These clinics specialize in recognizing, evaluating, and treating illnesses that result from exposure to hazardous substances.

Toxicological profiles are also available on-line at www.atsdr.cdc.gov and on CD-ROM. You may request a copy of the ATSDR ToxProfiles™ CD-ROM by calling the toll-free information and technical assistance number at 1-800-CDCINFO (1-800-232-4636), by e-mail at cdcinfo@cdc.gov, or by writing to:

Agency for Toxic Substances and Disease Registry
Division of Toxicology and Environmental
Medicine
1600 Clifton Road NE
Mailstop F-32
Atlanta, GA 30333
Fax: 1-770-488-4178

Organizations for-profit may request copies of final Toxicological Profiles from the following:

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Phone: 1-800-553-6847 or 1-703-605-6000
Web site: <http://www.ntis.gov/>

**DEPARTMENT of HEALTH AND HUMAN SERVICES, Public Health Service
Agency for Toxic Substances and Disease Registry**

www.atsdr.cdc.gov/

Telephone: 1-800-232-4636

Fax: 770-488-4178

E-Mail: cdcinfo@cdc.gov

EXHIBIT C



United States Department of Defense

Report to the Congress

Perchlorate in the Southwestern United States

Submitted by:

**The Office of the Secretary of Defense
Under Secretary of Defense
(Acquisition, Technology & Logistics)**

July 2005

**Report to Congress:
Perchlorate in the Southwestern United States**

Executive Summary

This Report to Congress is submitted in response to a Congressional request for information on perchlorate groundwater contamination in and around the Colorado River, Southern California, Arizona, and Nevada. This request was made by the House Appropriations Committee in House Report 108-187:

“The Committee is aware of the controversy surrounding the evaluation of perchlorate contamination of groundwater in Southern California and other areas across the country. The Committee directs the Department to conduct a joint study with the Environmental Protection Agency of perchlorate groundwater contamination, to be completed within 180 days of the enactment of this Bill. This report will examine in detail perchlorate groundwater pollution in and around the Colorado River, San Bernardino County, the [Coachella] Valley, Santa Clara River and the Imperial Valley that threatens drinking and irrigation water supplies in Southern California, Arizona and Nevada. This report will assess the breadth and scope of contamination and make preliminary recommendations that will, at a minimum, include:

- 1. Recommendations for the establishment of a national standard for acceptable levels of perchlorate groundwater contamination;*
- 2. Determination of the military/defense industry sources that have contributed to perchlorate contamination; and*
- 3. Outline appropriate steps to be taken to mitigate or clean up those areas that are deemed to be the government’s responsibility.”*

Background on Perchlorate

Historically, a substantial portion of the annual production of certain perchlorate compounds has been for defense activities and the aerospace industry. Ammonium perchlorate (NH₄ClO₄ or AP), potassium perchlorate (KClO₄ or KP), magnesium perchlorate (MgClO₄ or MgP) and other perchlorate salts are used by the Department of Defense (DoD or the Department) in some military munitions items, and by the Department and the National Aeronautics and Space Administration (NASA) in certain solid fuel rocket motor applications. Perchlorate compounds are also used in a number of commercial items and applications, including fireworks and other explosives, air bag inflators, highway flares, human pharmaceuticals, and analytical chemistry.

Perchlorate is also sometimes naturally occurring in arid environments, is sometimes associated with nitrate deposits, and is a constituent of Chilean nitrate fertilizers imported for use in the United States. Large quantities of nitrate fertilizer were exported from Chile to the United States from the late 1800s to the 1950s, although the amount is substantially lower due to advances in commercializing synthetic nitrate fertilizers. While there have been environmentally-significant releases of perchlorate, the overall extent that manufacturing processes and commercial uses have made are not defined, nor is it known to what extent naturally-occurring perchlorate has contributed to widespread low-level detections.

Under the leadership of the Executive Office of the President (Office of Management and Budget (OMB), the Office of Science and Technology Policy (OSTP), and the Council on Environmental Quality (CEQ)), the Department of Defense (DoD), the Environmental Protection Agency (EPA), the National Aeronautics and Space Administration (NASA), and the Department of Energy (DOE) formed an Interagency Working Group (IWG) on Perchlorate to address perchlorate science issues. DoD, EPA, NASA, and DOE funded and co-sponsored a National Academies of Science (NAS) review of perchlorate science. Appendix A contains the charge to the NAS. Other agencies that later joined the IWG include the U.S. Department of Agriculture (USDA), the Food and Drug Administration (FDA), the Department of the Interior (DOI), and Health and Human Services (HHS.)

Currently, there is no Federal drinking water standard for perchlorate. The NAS published a recommended oral reference dose (RfD) of 0.0007 mg/kg-day (roughly equivalent to 25 parts per billion (ppb)) in its January 2005 report. On February 18, 2005 EPA formally revised the agency's Integrated Risk Information System (IRIS) to reflect the NAS-recommended value.¹ Although none of the three states in the study area have established regulatory drinking water standards for perchlorate, Arizona, Nevada and California have established guidance levels for perchlorate in drinking water (14 ppb, 18 ppb, and 6 ppb, respectively). Generally, these are advisory levels which represent levels of a contaminant in drinking water at which it is recommend that certain notifications be made. It is expected that officials from all three states will revisit their values based upon the NAS report and EPA's subsequent IRIS actions. While indicating their intent to revisit the PHG, California officials have also committed to establishing a state drinking water standard in 2005.

As of October 2004, perchlorate has been detected at some level in over 320 drinking water wells and reservoir intakes in the study area, primarily in the California counties of Los

¹ *An RfD serves as the foundation, along with other considerations, upon which regulatory and cleanup decisions are made. In the absence of a final RfD or Federal regulatory standards for perchlorate, EPA had issued interim assessment guidance for site remediation based on a provisional draft perchlorate RfD of 0.0001 – 0.0005 mg/kg-day. States often use the RfD in developing their guidance and regulations.*

Angeles, San Bernardino, and Riverside. Perchlorate is also present in the waters drawn from the Lower Colorado River used for drinking water and agricultural purposes at concentrations that typically average 4 to 5 ppb.²

Summary of Findings

The Department of Defense has proactively dealt with the perchlorate challenge since 1996, and has a long history of cooperation with the U.S. Environmental Protection Agency (EPA), state regulators, and other perchlorate stakeholders. Many DoD facilities have sampled for perchlorate under the Department's *Interim Policy on Sampling for Perchlorate*; the Defense Environmental Restoration Program (DERP); and in accordance with the Unregulated Contaminant Monitoring Rule (UCMR) at DoD drinking water systems.

Charge: Examine Perchlorate Groundwater Pollution

This report uses available sampling data to examine perchlorate contamination of groundwater in the Southern California, Arizona, and Nevada counties identified in Section 1.1 (the tri-state study area). Perchlorate sampling data were obtained from the databases listed in Section 1.3. The information represents the most comprehensive data available on perchlorate contamination in the study area at the time this study was being drafted.

Sections 2 and 4 and Appendices B and C present information on perchlorate detections at non-DoD industrial facilities and at Department of Defense facilities located in the tri-state study area. Information regarding where water samples have been analyzed for perchlorate and not detected was generally not available for non-DoD facilities through the data sources used for this report, and so non-detect information for non-DoD industrial facilities is generally not included in this report. In contrast, all reported results for analysis of perchlorate are presented for all sampled DoD facilities in the area covered by this report, therefore the ranges for DoD facilities will commonly include a range from non-detect to a positive finding. In some cases, where no perchlorate is anticipated based on past activities, sampling of DoD facilities also reveals that no perchlorate was detectable. For the purposes of this report, the term Department of Defense "facility" refers to active, realigned or closed military installations, associated sites such as test and training ranges, laboratories, etc., and Formerly Used Defense Sites (FUDS) to which the U.S. has access. Data reported by sources other than DoD has not been verified by DoD, and the reader is cautioned against making unwarranted assumptions regarding its accuracy. In addition, the reader should understand that the process of combining data collected from different sources is fraught with difficulty, and is cautioned against making general assumptions based on the reported data. Data analysis and presentation issues are discussed in more detail in Section 1.3 and 2.1.

² California Department of Health Services, www.dhs.ca.gov/ps/ddwem/chemicals/perchl/monitoringupdate.htm.

Non-Department of Defense Industrial Sites

Environmental releases associated with operations at the Kerr-McGee Chemical Company (KMCC) plant and the former Pacific Engineering and Production Company (PEPCON) facility in Henderson, Nevada, resulted in significant perchlorate contamination of Lake Mead, the lower Colorado River, and those areas that use Colorado River water for drinking and agricultural purposes. The groundwater plume associated with KMCC operations is the largest known release of perchlorate in the country.³

A total of 10 industrial facilities (nine industrial and one governmental other than DoD) in the tri-state study area counties are reported to have sampled for and detected perchlorate in groundwater, soil, or drinking water supplies. Of these 10 facilities, three are located in Arizona, five are located in California, and two are located in Nevada.

Arizona – Three industrial facilities

- Drinking water sampling data for two facilities indicate perchlorate detected at concentrations ranging from 2 to 65 ppb.
- Groundwater sampling data for three facilities indicate perchlorate detected at concentrations ranging from 18 ppb to 130 ppb.

California – Four industrial facilities and one NASA facility

- Drinking water sampling data indicates perchlorate at all four industrial facilities in concentrations ranging from 2.1 to 811 ppb.
- Two industrial facilities (the Stringfellow site and Whittaker Bermite) have perchlorate sampling data indicating contamination of groundwater at concentrations ranging from 290,000 to 682,000 ppb.
- The Whittaker Bermite facility is identified as having perchlorate contamination of soil at a maximum concentration of 1,500,000 ppb.
- Perchlorate sampling at NASA's Jet Propulsion Laboratory (JPL) indicates a maximum groundwater concentration of 1,500 ppb and a maximum concentration of 31 ppb in an off-site drinking water well.⁴

Nevada – Two industrial facilities (Kerr-McGee and PEPCON)

- Groundwater sampling indicates perchlorate contamination ranging from 110,000 to 1,500,000 ppb.

³ State of Nevada Division of Environmental Protection website: http://ndep.nv.gov/ADMIN/epa_award03.htm.

⁴ NASA is funding a treatment system for this water. More information can be found on page 25 of this Report.

Department of Defense Facilities

Of the 28 active, realigned or closed DoD facilities in the study area, 22 reported perchlorate sampling data. Five are located in Arizona and 17 are located in California study areas.⁵ The remainder of these DoD facilities have not sampled for perchlorate because DoD believes that there is no reason to suspect an environmental release attributable to DoD activities or that a complete human exposure pathway is not likely to exist. Working collaboratively, the U.S. Army Corps of Engineers (USACE) and California state regulators have also identified 13 FUDS in the Southern California study that require a more in-depth records search to assess for the potential of an environmental release of perchlorate while under the jurisdiction of DoD. The records search is on-going, with results expected in October 2005.

Arizona

- Three facilities (Davis-Monthan Air Force Base (AFB), Air Force Plant 44, and Yuma Proving Ground) sampled for perchlorate in drinking water. Two sites (Davis-Monthan AFB and Air Force Plant 44) reported only non-detects, and one facility (Yuma Proving Ground) reported perchlorate concentrations ranging from 4 to 31.9 ppb.
- Four facilities (Davis-Monthan AFB, Marine Corps Air Station (MCAS) Yuma, the western segment of the Barry M. Goldwater Range (BMGR), and Air Force Plant 44) sampled for perchlorate in groundwater. Two sites (BMGR and MCAS Yuma) reported concentrations from non-detect to 4 ppb, and the two remaining sites reported only non-detects.
- Two facilities (MCAS Yuma and Yuma Proving Ground) sampled for perchlorate in surface water and reported 4.6 to 5 ppb in water supplied by the Colorado River.
- Two facilities (Barry M. Goldwater Range West and Davis-Monthan AFB) sampled for perchlorate in soil and reported perchlorate concentrations ranging from non-detect to 150 and 28,000 ppb respectively.

California

- Ten facilities tested drinking water for perchlorate. Nine reported only non-detects, and one (MCAS Yuma Chocolate Mountains) reported concentrations ranging from non-detect to 4.2 ppb from Colorado River water. Six facilities reported not sampling drinking water either because of no drinking water supply wells are located on the facility, or because drinking water is provided by a local purveyor.
- Ten facilities reported sampling for groundwater. Five reported only non-detects; three reported concentrations that ranged from non-detect to 398 ppb; and the two

⁵ Based on a review of the types of activities carried out at Nellis AFB, Nevada, it was determined by DOD that the potential for perchlorate releases on the base was negligible, and sampling for perchlorate was unnecessary by DOD. DoD has asked the Military Services to develop plans to address potential migration of munitions constituents such as perchlorate on operational ranges. A basic range assessment at the boundaries of the nearby Nevada Test and Training Range was conducted in 2004 by DOD, but the results are not yet available.

remaining facilities (with a history of producing and testing of solid propellant, Naval Air Warfare Center Weapons Division (NAWC/WD) at China Lake and Edwards AFB) reported the highest perchlorate detections, with perchlorate concentrations ranging from non-detect to 30,700 ppb.

- One facility (Navy Outlying Landing Facility (NOLF) San Nicolas Island) reported perchlorate in surface water at concentrations ranging from non-detect to 20 ppb.
- Four facilities conducted soil sampling. Three (NOLF San Nicolas Island, former MCAS El Toro, and Edwards AFB) reported concentrations ranging from 1.7 to 2,100,000 ppb. One facility (MCAS Yuma Chocolate Mountains) reported only non-detect values for perchlorate in soil. Edwards AFB, which has a history of propellant production and testing, reported concentrations ranging from 700 ppb to 2,100,000 ppb.

Nevada

- A basic range assessment was conducted at the boundaries of the Nevada Test and Training Range in 2004. The results are not yet available.

Charge: Recommendations for a National Standard for Perchlorate

Currently there is no Federal drinking water standard for perchlorate. With the January 2005 release of the NAS report and the subsequent adoption of the NAS-proposed RfD for perchlorate, EPA will now begin evaluating the appropriateness of establishing a drinking water standard for perchlorate under the Safe Drinking Water Act (SDWA). If EPA decides to develop a drinking water regulation, it will consider the RfD along with other factors described in the SDWA section 1423(b) (e.g., exposure, analytical methods, efficacy, and cost-effectiveness of treatment technology.) The promulgation of a drinking water standard for perchlorate based on the RfD will be an open and transparent process, subject to scientific peer review and public and agency comment. As would typically occur, EPA will consult with DoD and other Federal agency stakeholders in an open manner in the promulgation of a Maximum Contaminant Level Goal and MCL so the impact to each agency's operations from the standard is fully considered. DoD and other IWG members will provide information during this process so that EPA understands the national security and other government agency and policy implications for the standards being contemplated. A final RfD will also be considered for risk management decisions under the Defense Environmental Restoration Program (DERP) and the Comprehensive Environmental Response, Liability, and Compensation Act (CERCLA.)

Charge: Department of Defense Action Plan

The Department's current remediation action plan reflects its commitment to the protection of public health and the environment from releases of perchlorate from DoD activities. This plan reflects a multifaceted approach that includes:

- Assessing current and historical activities that could release or may have already released perchlorate
- Sampling for perchlorate presence⁶
- Establishing priorities for sampling and monitoring that reflect the most sensitive exposure pathways^{7,8}
- Monitoring and determining appropriate actions to prevent migration of perchlorate into drinking water supplies⁹
- Incorporating applicable or relevant and appropriate Federal or state regulatory standards, whichever are more stringent, into DoD's cleanup program once standards are established for perchlorate¹⁰
- Preventing pollution and investing in finding substitutes for the various military uses of perchlorate that will have fewer public health and environmental concerns.¹¹

The Department of Defense continues to play a leadership role in perchlorate science and technology. Over the last decade, DoD has invested approximately \$59 million on perchlorate science and technology initiatives. These initiatives include investigations into perchlorate sampling and analysis, identifying and evaluating innovative and cost-effective remediation technologies, applying pollution prevention principles to minimize and eliminate perchlorate waste streams, and finding potential alternatives to perchlorate in munitions items.

In the absence of otherwise properly promulgated and applicable state or Federal standards, the Department will continue to evaluate the extent of perchlorate contamination at installations and address sources of contamination that present an unacceptable risk to public health, safety, or the environment, in consultation with Federal, state, and local authorities using available sampling data and related information. Such responses will occur on a case-by-case basis, reflecting the individual circumstances of sites where perchlorate contamination is found. When a standard for perchlorate is promulgated, the Department is poised to effectively address perchlorate contamination attributable to DoD activities.

⁶ *Interim Policy on Perchlorate Sampling*, Philip W. Grone, Principal Assistant Deputy Under Secretary of Defense (Installations and Environment), September 29, 2003.

⁷ *ibid.*

⁸ *Prioritization Protocol for Perchlorate Impacts to Drinking Water from DoD Facilities in California*, Alex Beehler, Assistant Deputy Under Secretary of Defense (Environment, Safety, and Occupational Health), September 23, 2004.

⁹ DoD Instruction 4715.6, *Environmental Compliance*.

¹⁰ DoD Instruction 4715.7, *Environmental Restoration Program*.

¹¹ Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*, September 14, 1998.

3.3 Other Sources of Perchlorate

It is important to realize that sources of perchlorate other than those directly associated with the Department of Defense and industrial facilities may have contributed to the widespread nature of regional, low-level perchlorate contamination. Several such potential sources are briefly discussed below.

3.3.1 Perchlorate in Flares

While many of the known detections of perchlorate in California can be related to industrial, defense, or aerospace point sources, the use of perchlorate compounds in emergency flares has recently been recognized by the Santa Clara Valley Water District (SCVWD) as a potentially significant source of perchlorate releases into the environment. Based on inventory records from city, county, and state agencies (law enforcement, transportation maintenance, and emergency response units), the SCVWD estimates that over 40 metric tons of flares were used/burnt in Santa Clara County alone in 2002.⁶⁰

The water district study is one of the first to examine the contribution differences between burnt and unburnt flares, and concluded that flares can be a significant source of ground and surface water contamination. Studies showed that one unburnt flare leached up to 243,000 ppb perchlorate when in contact with 15 liters of water for 3.5 hours. Theoretically, this is enough to contaminate up to 2.2 acre-feet of water to 4 ppb. Under similar circumstances, even flares that were “completely burnt” released perchlorate into the environment via the pyrotechnic residues at levels of up to 130 ppb per flare.⁶¹ The SCVWD recommended that further studies be conducted on the non-point source discharge of perchlorate into the environment from road flares, and that regional management practices and policies be developed to minimize contamination resulting from safety flares.

3.3.2 Perchlorate in Agricultural Products

Chilean nitrate—historically a common ingredient in some fertilizers—has been a known natural source of perchlorate for more than a century. Large quantities of nitrate fertilizer were exported from Chile to the United States from the late 1800s to the 1950s. By 1950, Chilean nitrate accounted for approximately 15% of the world market for fixed nitrogen although that number is likely lower in the United States than in the world as a whole due to advances in commercializing synthetic

⁶⁰ *Perchlorate in Highway Safety Flares, Brown Bag: Advancements in Emergency Lighting Systems - Are There Safer Alternatives?* James S. Crowley – SCVWD, Thomas Mohr – SCVWD, Miguel A. Silva – SCVWD Kenneth S. Dueker – PA Police & CEO PowerFlare™, Santa Clara Valley Water District, 15 January 2004.

⁶¹ *Safety Flares Threaten Water Quality with Perchlorate*, SCVWD, Miguel Silva, 29 July 2003.

nitrate fertilizers.⁶² Santa Ana Regional Water Quality Board officials have recently acknowledged that a major source of perchlorate pollution in some Southern California drinking water supplies may be the Chilean nitrate fertilizer that was applied to the region's citrus crops for decades into the early 20th century.⁶³ Water Quality Board officials estimate that every thousand pounds of the fertilizer contained up to two pounds of naturally-occurring perchlorate. Given the past economic prominence of the citrus industry in the region, the extensive historic use of Chilean nitrate fertilizers in the citrus and other agricultural industries cannot be dismissed as a contributing factor to widespread, low-level perchlorate detections experienced across the region, particularly in areas in which a defense or industry point source cannot be identified as having caused an environmental release. Wells that may have been contaminated by fertilizer have been identified in Fontana, East Highlands, Corona, Chino, Chino Hills, Ontario, and Rancho Cucamonga.⁶⁴

The commercial use of sodium chlorate as a non-selective contact herbicide bleaching agent in the pulp and paper industry suggest that it, too, may also have contributed to environmental releases of perchlorate.

3.3.3 Naturally-Occurring Perchlorate

To date, most perchlorate found in ground and surface waters has been attributed to production and/or demilitarization processes associated with its major uses as an oxidizer in solid propellants for rockets, fireworks, and other explosives. Training activities may also result in releases. However, perchlorate found in the soils, surface water, and groundwater of some locations cannot be linked to an anthropogenic point source, suggesting naturally-occurring perchlorate may be more widespread than previously suspected.

Researchers from the USGS and the Air Force have previously documented the presence of perchlorate in a variety of items such as kelp, fishmeal, and potash.⁶⁵ Researchers have also begun investigations into the connection between the natural climatic and geochemical conditions of desert regions and the formation of compounds such as perchlorates and nitrates.^{66,67} Researchers at Texas Tech University have routinely found perchlorate in precipitation at sub-ppb levels using an IC/MS/MS analytical method similar to that being developed by EPA,

⁶² *The Chilean Nitrate Deposit, American Scientist, Ericksen, G.E., Volume 71, 366-374, 1983*

⁶³ *Fertilizer Yields Perchlorate, The Press Enterprise Company, Riverside, CA, 28 February 2004.*

⁶⁴ *Ibid*

⁶⁵ *Preliminary Analyses for Perchlorate in Selected Natural Materials and Their Derivative Products, Orris, G.; Harvey G., USGS 03-314, 2003.*

⁶⁶ *Preliminary Analyses for Perchlorate in Selected Natural Materials and Their Derivative Products, Orris, G.; Harvey G., USGS 03-314, 2003.*

⁶⁷ *A Reservoir of Nitrate Beneath Desert Soils, Walvoord, M., et al, Science Magazine, Volume 302, November 2003.*

EXHIBIT D

APPENDIX A

CONSTRUCTION HEALTH RISK ASSESSMENT

Prepared By:

ILLINGWORTH & RODKIN, INC.

December 2013

***505 LINCOLN AVENUE
RESIDENTIAL PROJECT –
CONSTRUCTION HEALTH RISK
ASSESSMENT
SAN JOSE, CALIFORNIA***

December 3, 2013

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Project 13-208

INTRODUCTION

This report provides the results of an assessment of potential health risk impacts from construction of a 190-unit residential project at 505 Lincoln Avenue in San Jose, California. The project proposes to rezone an approximately three-acre site from *IP – Industrial Park* to *PD – Planned Development* to allow for the development of up to 190 residential units. The proposed zoning would allow for buildings of up to six stories with a maximum building height of 85 feet. The conceptual site plan shows the development of a five-story (85 feet tall), 190-unit residential building. The building could be a podium structure with one level of below ground parking, parking and residential units on the first floor (the parking facilities would be located on the interior of the first floor with residential units wrapped around the exterior), and residential units on the upper four floors. A recreational courtyard with amenities, such as a pool and barbeque area, could be constructed on top of the podium (i.e., on the second floor).

Discussion of TACs

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer or serious illness) and include, but are not limited to, criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a highway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established ambient air quality standards. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Diesel Particulate Matter

Diesel exhaust, in the form of diesel particulate matter (DPM), is the predominant TAC in urban air with the potential to cause cancer. It is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resource Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The U.S. Environmental Protection Agency (EPA) and the CARB have adopted low-sulfur diesel fuel standards in 2006 that reduces diesel particulate matter substantially. The CARB recently adopted new regulations requiring the retrofit and/or replacement of construction equipment, on-highway diesel trucks, and diesel buses in order to lower fine particulate matter (PM_{2.5}) emissions and reduce statewide cancer risk from diesel exhaust.

Fine Particulate Matter (PM_{2.5})

Particulate matter in excess of state and federal standards represents another challenge for the Bay Area. Elevated concentrations of PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases,

reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are existing apartments immediately west of the site. Additionally, there are residences to the south-southwest between Race and Lincoln Avenues.

TAC Thresholds of Significance

The Bay Area Air Quality Management District (BAAQMD) identified significance thresholds for exposure to TACs and PM_{2.5} as part of its May 2011 *CEQA Air Quality Guidelines*¹. This report uses the thresholds and methodologies from BAAQMD's May 2011 *CEQA Air Quality Guidelines* to determine whether there would be any project health risk impacts. This report addresses single-source (construction) impacts to nearby off-site receptors. This impact would be considered significant and mitigation would be required if:

1. An excess cancer risk level of more than 10 in 1 million, or a non-cancer (chronic or acute) hazard index greater than 1.0.
2. An incremental increase of more than 0.3 micrograms per cubic meter (µg/m³) annual average PM_{2.5}.

Construction TAC Impacts

Construction activity is anticipated to include demolition of existing structures and paved areas, excavation, grading, building construction, paving and application of architectural coatings. During demolition, excavation, grading, and some building construction activities, substantial amounts of dust could be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and would be dependent on the size of the area disturbed at any given time, amount of activity, soil conditions, and meteorological conditions. To address fugitive dust emissions that lead to elevated PM₁₀ and PM_{2.5} levels near construction sites, the BAAQMD *CEQA Air Quality Guidelines* identify best control measures. If included in construction projects, these impacts will be considered less than significant.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a TAC. BAAQMD has developed screening tables for evaluating potential impacts from toxic air contaminants emitted at construction projects.² The screening tables are described by BAAQMD as “environmentally conservative interim guidance” and are meant to be used to identify potentially significant impacts that should be modeled using refined techniques. These screening tables indicate that construction activities similar to this project could have significant impacts at distances beyond 100 meters or 330 feet, with the primary impact being excess cancer risk. However, these screening tables are based on older construction

¹ BAAQMD, 2011. *BAAQMD CEQA Air Quality Guidelines*. May.

² BAAQMD. 2010. *Screening Tables for Air Toxics Evaluation During Construction*. May.

equipment that has higher emission rates and the load factors assumed were considerably higher than those recently recommended by the CARB. Since project construction activities would include demolition, excavation, grading, and building construction that would last longer than 6 months and would be located within 330 feet of residences, a more refined- level study of community risk assessment was conducted. Because the gross analysis indicated that impacts were possible, a refined analysis was conducted to evaluate whether impact would be significant, and if so, identify the project features or mitigation measures that would be necessary to avoid significant impacts in terms of community risk impacts to nearby sensitive receptors (e.g., adjacent residences).

On-Site Construction TAC Emissions

The refined health risk assessment focused on modeling on-site construction activity using construction fleet information included in the project design features. For these reasons, construction period emissions were modeled using the California Emissions Estimator Model, Version 2013.2.2 (CalEEMod) along with projected construction activity. The number and types of construction equipment and diesel vehicles, along with the anticipated length of their use for different phases of construction were based on site-specific construction activity schedules. Construction of the project is expected to occur for about 470 working days over about a twenty month period beginning in October 2014. The CalEEMod model provided total annual PM_{2.5} exhaust emissions (assumed to be diesel particulate matter) for the off-road construction equipment and for exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles), with total emissions of 0.0808 tons (161.6 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during building construction. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod as 0.0054 tons (10.8 pounds) for the overall construction period. The CalEEMod model output with emission calculations are provided in *Attachment 1*.

Dispersion Modeling

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM at existing sensitive receptors in the vicinity of the project site. The ISCST3 modeling utilized two area sources to represent the on-site construction emissions, one for DPM exhaust emissions and one for fugitive PM_{2.5} dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes and buoyancy of the exhaust plume. For modeling fugitive PM_{2.5} emissions, a near ground level release height of 2 meters was used for the area source. Emissions from truck travel at the project site were also included in the area source for exhaust emissions. Emissions were modeled as occurring daily between 7 am - 4 pm. The model used a 5-year data set (1991 - 1995) of hourly meteorological data from the San Jose Airport available from the BAAQMD. Annual DPM concentrations from construction activities were predicted for 2014 through 2016, with the annual average concentrations based on the 5-year average concentrations from modeling 5 years of meteorological data. DPM concentrations were calculated at nearby sensitive receptors at heights of 1.5 meters (4.9 feet), 4.5 meters (14.8 feet), and 7.6 meters (24.9 feet) representative of the first three levels of the nearby residential buildings.

Cancer Risk and Hazards

The maximum-modeled DPM concentration occurred at the residence adjacent to the western boundary of the construction area at a receptor height of 4.5 meters. The location of this receptor is identified on Figure 1. Increased cancer risks were calculated using the modeled annual concentrations and BAAQMD

recommended risk assessment methods for both a child exposure (3rd trimester through 2 years of age) and for an adult exposure. Since the modeling was conducted under the conservative assumption that emissions occurred 365 days per year, the default BAAQMD exposure period of 350 days per year was used.

Results of this assessment indicate that, with project construction, the incremental child cancer risk at the maximally exposed individual (MEI) would be 8.8 in one million and the adult incremental cancer risk would be 0.6 in one million. These predicted excess cancer risks are below the BAAQMD significance threshold of 10 in one million and be considered a less than significant impact.

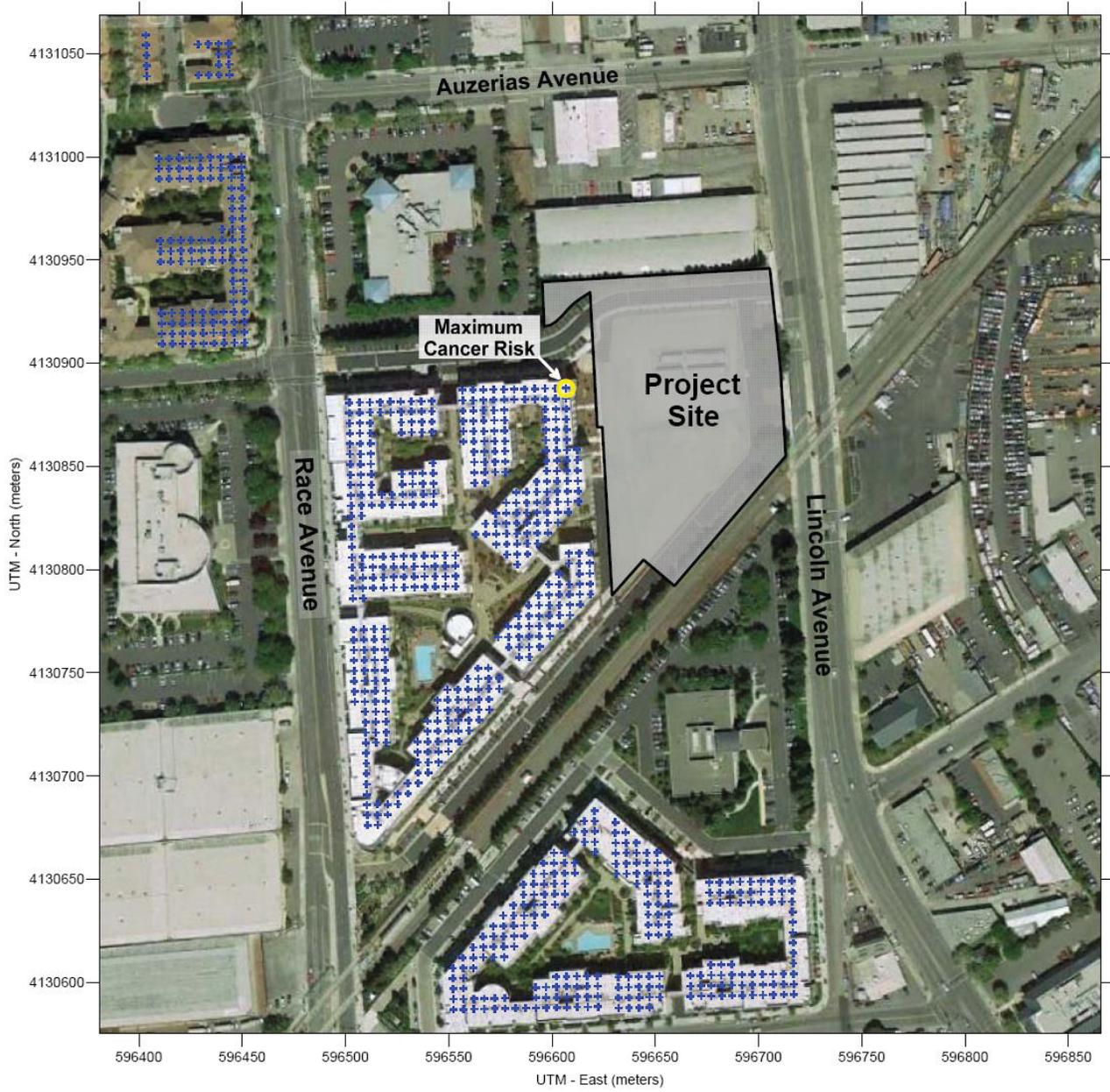
The modeled maximum annual PM_{2.5} concentration was 0.07 micrograms per cubic meter (µg/m³) occurring at the residence adjacent to the western boundary of the construction area at a height of 1.5 meters. This PM_{2.5} concentration is well below the BAAQMD threshold of 0.3 µg/m³ used to judge the significance of impacts for PM_{2.5}.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. The chronic inhalation reference exposure level (REL) for DPM is 5 µg/m³. The maximum predicted annual DPM concentration was 0.065 µg/m³, which is much lower than the REL. The Hazard Index (HI), which is the ratio of the annual DPM concentration to the REL, is 0.013. This HI is much lower than the BAAQMD significance criterion of a HI greater than 1.0.

The project would have a *less-than-significant* impact with respect to community risk caused by construction activities.

Attachment 1 includes the emission calculations used for the area source modeling, dispersion modeling inputs, and the cancer risk calculations.

Figure 1 – Project Construction Site and Residential Receptor Locations



ATTACHMENT 1

505 Lincoln Ave, San Jose, CA - Without Mitigation DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2014	Construction	0.0095	CON_DPM	19.0	0.00577	7.27E-04	10,703	6.79E-08
2015	Construction	0.0422	CON_DPM	84.4	0.02569	3.24E-03	10,703	3.02E-07
2016	Construction	0.0292	CON_DPM	58.4	0.01778	2.24E-03	10,703	2.09E-07

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

505 Lincoln Ave, San Jose, CA - Without Mitigation PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	Area (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	DPM Emission Rate g/s/m ²
				(lb/yr)	(lb/hr)	(g/s)		
2014	Construction	CON_FUG	0.0025	4.9	0.00150	1.89E-04	10,703	1.76E-08
2015	Construction	CON_FUG	0.0019	3.7	0.00114	1.43E-04	10,703	1.34E-08
2016	Construction	CON_FUG	0.0011	2.2	0.00067	8.44E-05	10,703	7.88E-09

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

505 Lincoln Ave, San Jose, CA - Construction Impacts - Unmitigated Emissions
Maximum DPM Cancer Risk Calculations From Construction
Off-Site Residential Receptor Locations - 4.5 meters

Cancer Risk (per million) = CPF x Inhalation Dose x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹

Inhalation Dose = C_{air} x DBR x A x EF x ED x 10⁻⁶ / AT

Where: C_{air} = concentration in air (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time period over which exposure is averaged.

10⁻⁶ = Conversion factor

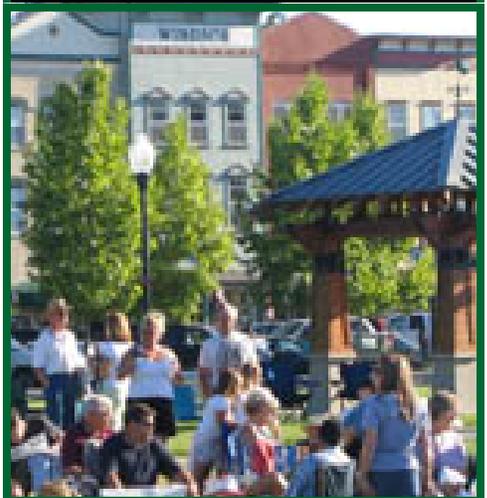
Values

Parameter	Child	Adult
CPF =	1.10E+00	1.10E+00
DBR =	581	302
A =	1	1
EF =	350	350
AT =	25,550	25,550

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Year	Exposure Duration (years)	Child - Exposure Information			Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
		DPM Conc (ug/m3)		Exposure Adjust Factor		Modeled DPM Conc (ug/m3)		Exposure Adjust Factor			
		Year	Annual			Year	Annual				
1	1	2014	0.0145	10	1.27	2014	0.0145	1	0.07	0.0041	0.019
2	1	2015	0.0645	10	5.65	2015	0.0645	1	0.29	0.0032	0.068
3	1	2016	0.0447	4.75	1.86	2016	0.0447	1	0.20	0.0019	0.047
4	1		0.0000	3	0.00		0.0000	1	0.00		
5	1		0.0000	3	0.00		0.0000	1	0.00		
6	1		0.0000	3	0.00		0.0000	1	0.00		
7	1		0.0000	3	0.00		0.0000	1	0.00		
8	1		0.0000	3	0.00		0.0000	1	0.00		
9	1		0.0000	3	0.00		0.0000	1	0.00		
10	1		0.0000	3	0.00		0.0000	1	0.00		
11	1		0.0000	3	0.00		0.0000	1	0.00		
12	1		0.0000	3	0.00		0.0000	1	0.00		
13	1		0.0000	3	0.00		0.0000	1	0.00		
14	1		0.0000	3	0.00		0.0000	1	0.00		
15	1		0.0000	3	0.00		0.0000	1	0.00		
16	1		0.0000	3	0.00		0.0000	1	0.00		
17	1		0.0000	1.5	0.00		0.0000	1	0.00		
18	1		0.0000	1	0.00		0.0000	1	0.00		
.		
.		
.		
65	1		0.0000	1	0.00		0.0000	1	0.00		
66	1		0.0000	1	0.00		0.0000	1	0.00		
67	1		0.0000	1	0.00		0.0000	1	0.00		
68	1		0.0000	1	0.00		0.0000	1	0.00		
69	1		0.0000	1	0.00		0.0000	1	0.00		
70	1		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk					8.78				0.56		

EXHIBIT E



CEQA & Climate Change

Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act

January 2008

Disclaimer

The California Air Pollution Control Officers Association (CAPCOA) has prepared this white paper consideration of evaluating and addressing greenhouse gas emissions under the California Environmental Quality Act (CEQA) to provide a common platform of information and tools to support local governments.

This paper is intended as a resource, not a guidance document. It is not intended, and should not be interpreted, to dictate the manner in which an air district or lead agency chooses to address greenhouse gas emissions in the context of its review of projects under CEQA.

This paper has been prepared at a time when California law has been recently amended by the Global Warming Solutions Act of 2006 (AB 32), and the full programmatic implications of this new law are not yet fully understood. There is also pending litigation in various state and federal courts pertaining to the issue of greenhouse gas emissions. Further, there is active federal legislation on the subject of climate change, and international agreements are being negotiated. Many legal and policy questions remain unsettled, including the requirements of CEQA in the context of greenhouse gas emissions. This paper is provided as a resource for local policy and decision makers to enable them to make the best decisions they can in the face of incomplete information during a period of change.

Finally, this white paper reviews requirements and discusses policy options, but it is not intended to provide legal advice and should not be construed as such. Questions of legal interpretation, particularly in the context of CEQA and other laws, or requests for advice should be directed to the agency's legal counsel.

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List of Acronyms and Abbreviations

<u>Acronym/ Abbreviation</u>	<u>Meaning</u>
AB 32	Assembly Bill 32 Global Warming Solutions Act of 2006
AG	Attorney General
ARB	Air Resources Board
ASTM	American Society of Testing and Material
BAAQMD	Bay Area Air Quality Management District
BAU	Business as Usual
BEES	Building for Environmental and Economic Sustainability
Calfire	California Fire
Caltrans	California Department of Transportation
CAP	Criteria Air Pollutants
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CCAP	Center for Clean Air Policy
CCAR	California Climate Action Registry
CDFA	California Department of Food and Agriculture
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CF	Connectivity Factor
CH ₄	Methane
CIWMB	California Integrated Waste Management Board
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CNG	Compressed Natural Gas
CPUC	California Public Utilities Commission
CUFR	California Urban Forestry
DGS	Department of General Services
DOE	U.S. Department of Energy
DOF	Department of Finance
DPF	Diesel Particulate Filter
DWR	Department of Water Resources
E85	85% Ethanol
EEA	Massachusetts Executive Office of Energy and Environmental Affairs
EERE	Energy Efficiency and Renewable Energy
EIR	Environmental Impact Report
EOE	Encyclopedia of Earth
EPA	U.S. Environmental Protection Agency
ETC	Edmonton Trolley Coalition
EV	Electric Vehicles
FAR	Floor Area Ratio

GHG	Greenhouse Gas
GGEP	Greenhouse Gas Emissions Policy
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GWP	Global Warming Potential
IGCC	Integrated Gasification Combined Cycle
IOU	Investor Owned Utility
IPCC	International Panel on Climate Change
IT	Information Technology
ITE	Institute of Transportation Engineers
J&S	Jones & Stokes
km	Kilometer
LandGem	Landfill Gas Emissions Model
LEED	Leadership in Energy and Environmental Design
LNG	Liquefied Natural Gas
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MEPA	Massachusetts Environmental Policy Act
MND	Mitigated Negative Declaration
MMT CO ₂ e	Million Metric Tons Carbon Dioxide Equivalent
MW	Megawatts
N ₂ O	Nitrous Oxide
NACAA	National Association Clean Air Agencies
ND	Negative Declaration
NEV	Neighborhood Electric Vehicle
NIST	National Institute of Standards and Technology
NO _x	Oxides of Nitrogen
NREL	National Renewable Energy Laboratory
NSCAPCD	Northern Sonoma County Air Pollution Control District
NSR	New Source Review
OPR	State Office of Planning and Research
PFC	Perfluorocarbon
PG&E	Pacific Gas & Electric
POU	Publicly Owned Utility
PM	Particulate Mater
RoadMod	Road Construction Emissions Model
ROG	Reactive Organic Gas
RPS	Renewable Portfolio Standards
RTP	Regional Transportation Plan
S-3-05	Executive Order S-3-05
SB	Senate Bill
SBCAPCD	Santa Barbara County Air Pollution Control District
SCAQMD	South Coast Air Quality Management District
SCM	Sustainable Communities Model
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Unified Air Pollution Control District
SLOCAPCD	San Luis Obispo County Air Pollution Control District

SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utilities District
SO _x	Sulfur Oxides
SP	Service Population
SRI	Solar Reflectance Index
SWP	State Water Project
TAC	Toxic Air Contaminants
TBD	To Be Determined
TDM	Transportation Demand Management
TMA	Transportation Management Association
THC	Total Hydrocarbon
UC	University of California
ULEV	Ultra Low Emission Vehicle
UNFCCC	United Nations Framework Convention on Climate Change
URBEMIS	Urban Emissions Model
USGBC	U.S. Green Building Council
VMT	Vehicle Miles Traveled
VTPI	Victoria Transit Policy
YSAQMD	Yolo-Solano Air Quality Management District

Introduction

The California Environmental Quality Act (CEQA) requires that public agencies refrain from approving projects with significant adverse environmental impacts if there are feasible alternatives or mitigation measures that can substantially reduce or avoid those impacts. There is growing concern about greenhouse gas emissions¹ (GHG) and recognition of their significant adverse impacts on the world's climate and on our environment. In its most recent reports, the International Panel on Climate Change (IPCC) has called the evidence for this "unequivocal." In California, the passage of the Global Warming Solutions Act of 2006 (AB 32) recognizes the serious threat to the "economic well-being, public health, natural resources, and the environment of California" resulting from global warming. In light of our current understanding of these impacts, public agencies approving projects subject to the CEQA are facing increasing pressure to identify and address potential significant impacts due to GHG emissions. Entities acting as lead agencies in the CEQA process are looking for guidance on how to adequately address the potential climate change impacts in meeting their CEQA obligations.



Air districts have traditionally provided guidance to local lead agencies on evaluating and addressing air pollution impacts from projects subject to CEQA. Recognizing the need for a common platform of information and tools to support decision makers as they establish policies and programs for GHG and CEQA, the California Air Pollution Control Officers Association has prepared a white paper reviewing policy choices, analytical tools, and mitigation strategies.

This paper is intended to serve as a resource for public agencies as they establish agency procedures for reviewing GHG emissions from projects under CEQA. It considers the application of thresholds and offers three alternative programmatic approaches toward

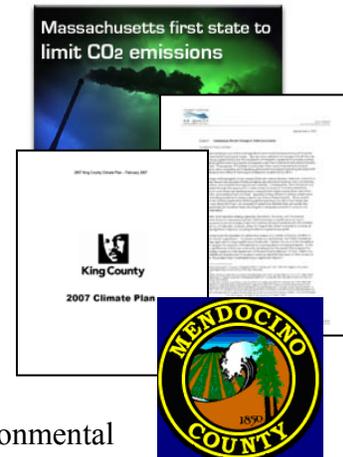
¹ Throughout this paper GHG, CO₂, CO₂e, are used interchangeably and refer generally to greenhouse gases but do not necessarily include all greenhouse gases unless otherwise specified.

determining whether GHG emissions are significant. The paper also evaluates tools and methodologies for estimating impacts, and summarizes mitigation measures. It has been prepared with the understanding that the programs, regulations, policies, and procedures established by the California Air Resources Board (CARB) and other agencies to reduce GHG emissions may ultimately result in a different approach under CEQA than the strategies considered here. The paper is intended to provide a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA while those programs are being developed.

Examples of Other Approaches

Many states, counties, and cities have developed policies and regulations concerning greenhouse gas emissions that seek to require or promote reductions in GHG emissions through standards for vehicle emissions, fuels, electricity production/renewables, building efficiency, and other means. A few have developed guidance and are currently considering formally requiring or recommending the analysis of greenhouse gas emissions for development projects during their associated environmental processes. Key work in this area includes:

- Massachusetts Office of Energy and Environmental Affairs Greenhouse Gas Emissions Policy;
- King County, Washington, Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act;
- Sacramento AQMD interim policy on addressing climate change in CEQA documents; and
- Mendocino AQMD updated guidelines for use during preparation of air quality impacts in Environmental Impact Reports (EIRs) or mitigated negative declarations.



The following paper evaluates options for lead agencies to ensure that GHG emissions are appropriately addressed as part of analyses under CEQA. It considers the use of significance thresholds, tools and methodologies for analyzing GHG emissions, and measures and strategies to avoid, reduce, or mitigate impacts.

Greenhouse Gas Significance Criteria

This white paper discusses three basic options air districts and lead agencies can pursue when contemplating the issues of CEQA thresholds for greenhouse gas emissions. This paper explores each path and discusses the benefits and disbenefits of each. The three basic paths are:

- No significance threshold for GHG emissions;

- GHG emissions threshold set at zero; or
- GHG threshold set at a non-zero level.

Each has inherent advantages and disadvantages. Air districts and lead agencies may believe the state or national government should take the lead in identifying significance thresholds to address this global impact. Alternatively, the agency may believe it is premature or speculative to determine a clear level at which a threshold should be set. On the other hand, air districts or lead agencies may believe that every GHG emission should be scrutinized and mitigated or offset due to the cumulative nature of this impact. Setting the threshold at zero will place all discretionary projects under the CEQA microscope. Finally, an air district or lead agency may believe that some projects will not benefit from a full environmental impact report (EIR), and may believe a threshold at some level above zero is needed.

This paper explores the basis and implications of setting no threshold, setting a threshold at zero and two primary approaches for those who may choose to consider a non-zero threshold. The first approach is grounded in statute (AB 32) and executive order (EO S-3-05) and explores four possible options under this scenario. The options under this approach are variations of ways to achieve the 2020 goals of AB 32 from new development, which is estimated to be about a 30 percent reduction from business as usual.

The second approach explores a tiered threshold option. Within this option, seven variations are discussed. The concepts explored here offer both quantitative and qualitative approaches to setting a threshold as well as different metrics by which tier cut-points can be set. Variations range from setting the first tier cut-point at zero to second-tier cut-points set at defined emission levels or based on the size of a project. It should be noted that some applications of the tiered threshold approach may require inclusion in a General Plan or adoption of enabling regulations or ordinances to render them fully effective and enforceable.

Greenhouse Gas Analytical Methodologies

The white paper evaluates various analytical methods and modeling tools that can be applied to estimate the greenhouse gas emissions from different project types subject to CEQA. In addition, the suitability of the methods and tools to characterize accurately a project's emissions is discussed and the paper provides recommendations for the most appropriate methodologies and tools currently available.

The suggested methodologies are applied to residential, commercial, specific plan and general plan scenarios where GHG emissions are estimated for each example. This chapter also discusses estimating emissions from solid waste facilities, a wastewater treatment plant, construction, and air district rules and plans.

Another methodology, a service population metric, that would measure a project's overall GHG efficiency to determine if a project is more efficient than the existing statewide average for per capita GHG emissions is explored. This methodology may be more directly correlated to a project's ability to help achieve objectives outlined in AB 32, although it relies on establishment of an efficiency-based significance threshold. The subcommittee believes this methodology may eventually be appropriate to evaluate the long-term GHG emissions from a project in the context of meeting AB 32 goals. However, this methodology will need further work and is not considered viable for the interim guidance presented in this white paper.

Greenhouse Gas Mitigation Measures

Common practice in environmental protection is first to avoid, then to minimize, and finally to compensate for impacts. When an impact cannot be mitigated on-site, off-site mitigation can be effectively implemented in several resource areas, either in the form of offsetting the same impact or preserving the resource elsewhere in the region.

This white paper describes and evaluates currently available mitigation measures based on their economic, technological and logistical feasibility, and emission reduction effectiveness. The potential for secondary impacts to air quality are also identified for each measure. A summary of current rules and regulations affecting greenhouse gas emissions and climate change is also provided.



Reductions from transportation related measures (e.g., bicycle, pedestrian, transit, and parking) are explored as a single comprehensive approach to land use. Design measures that focus on enhancing alternative transportation are discussed. Mitigation measures are identified for transportation, land use/building design, mixed-use development, energy efficiency, education/social awareness and construction.

Purpose

CEQA requires the avoidance or mitigation of significant adverse environmental impacts where there are feasible alternatives available. The contribution of GHG to climate change has been documented in the scientific community. The California Global Warming Solutions Act of 2006 (AB 32) mandates significant reductions in greenhouse gases (GHG); passage of that law has highlighted the need to consider the impacts of GHG emissions from projects that fall under the jurisdiction of the California Environmental Quality Act (CEQA). Because we have only recently come to fully recognize the potential for significant environmental impacts from GHG, most public agencies have not yet established policies and procedures to consider them under CEQA. As a result, there is great need for information and other resources to assist public agencies as they develop their programs.

Air districts have historically provided guidance to local governments on the evaluation of air pollutants under CEQA. As local concern about climate change and GHG has increased, local governments have requested guidance on incorporating analysis of these impacts into local CEQA review. The California Air Pollution Control Officers Association (CAPCOA), in coordination with the CARB, the Governor's Office of Planning and Research (OPR) and two environmental consulting firms, has harnessed the collective expertise to evaluate approaches to analyzing GHG in CEQA. The purpose of this white paper is to provide a common platform of information and tools to address climate change in CEQA analyses, including the evaluation and mitigation of GHG emissions from proposed projects and identifying significance threshold options.



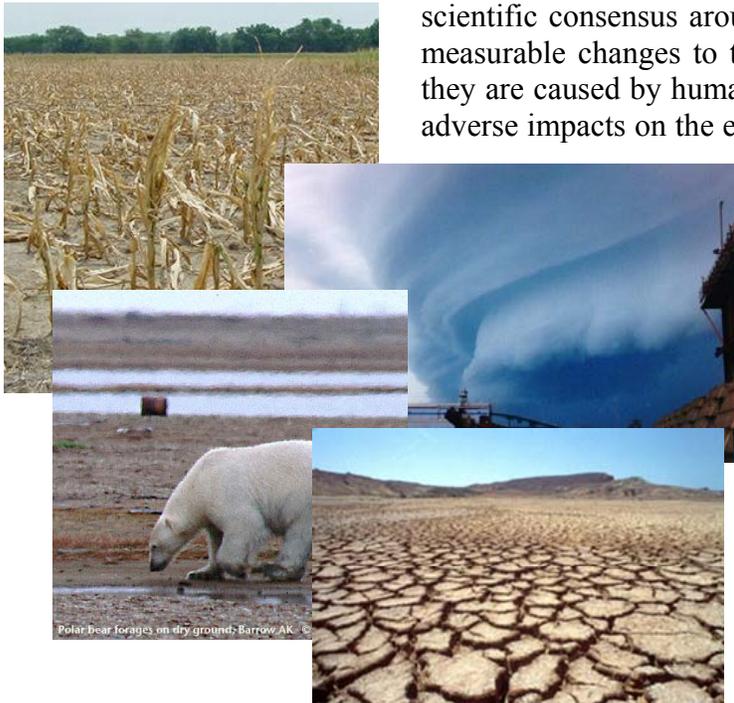
CEQA requires public agencies to ensure that potentially significant adverse environmental effects of discretionary projects are fully characterized, and avoided or mitigated where there are feasible alternatives to do so. Lead agencies have struggled with how best to identify and characterize the magnitude of the adverse effects that individual projects have on the global-scale phenomenon of climate change, even more so since Governor Schwarzenegger signed Executive Order S-3-05 and the state Legislature enacted The Global Warming Solutions Act of 2006 (AB 32). There is now a resounding call to establish procedures to analyze and mitigate greenhouse gas (GHG) emissions. The lack of established thresholds does not relieve lead agencies of their responsibility to analyze and mitigate significant impacts, so many of these agencies are seeking guidance from state and local air quality agencies. This white paper addresses issues inherent in establishing CEQA thresholds, evaluates tools, catalogues mitigation measures and provides air districts and lead agencies with options for incorporating climate change into their programs.

Background

National and International Efforts

International and Federal legislation have been enacted to deal with climate change issues. The Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The

most recent reports of the IPCC have emphasized the scientific consensus around the evidence that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.



In October 1993, President Clinton announced his Climate Change Action Plan, which had a goal to return greenhouse gas emissions to 1990 levels by the year 2000. This was to be accomplished through 50 initiatives that relied on innovative voluntary partnerships between the private sector and

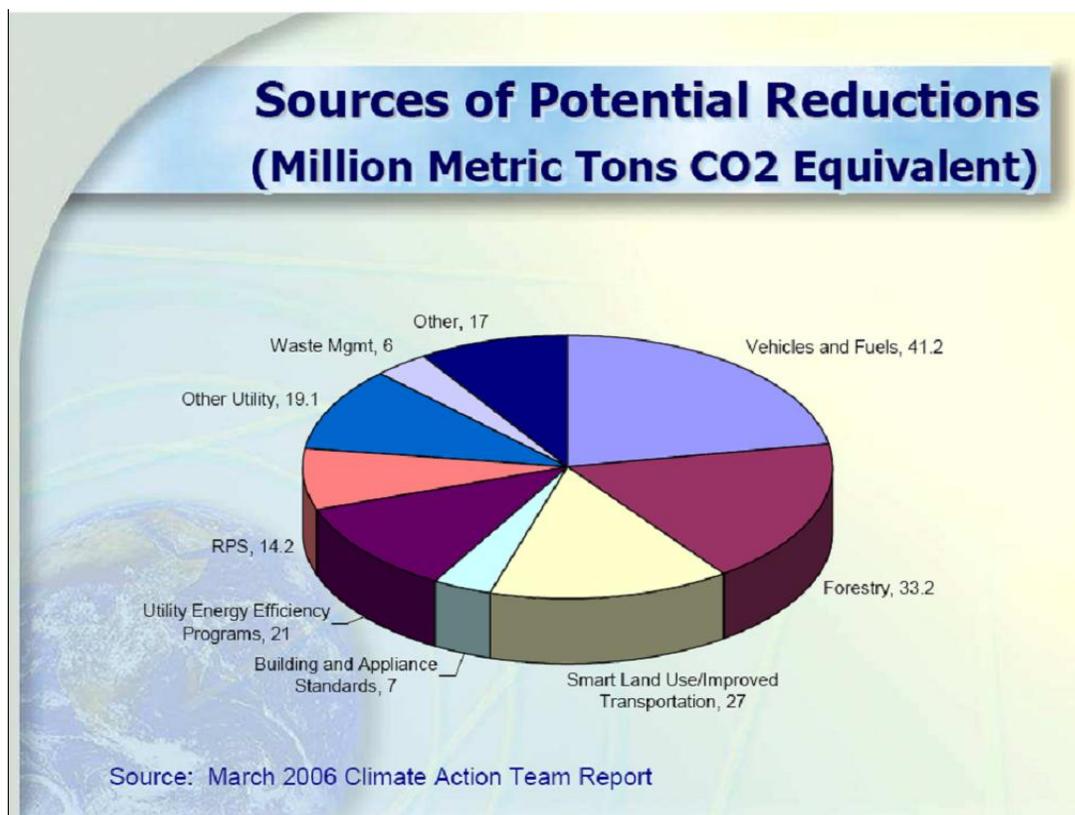
government aimed at producing cost-effective reductions in greenhouse gas emissions. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments agreed to gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

These efforts have been largely policy oriented. In addition to the national and international efforts described above, many local jurisdictions have adopted climate change policies and programs. However, thus far little has been done to assess the significance of the affects new development projects may have on climate change.

Executive Order S-3-05

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05 (S-3-05). It included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed the Secretary of the California Environmental Protection Agency to coordinate with the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the CARB, Chairperson of the Energy Commission and President of the Public Utilities Commission on development of a Climate Action Plan.

The Secretary of CalEPA leads a Climate Action Team (CAT) made up of representatives from the agencies listed above to implement global warming emission reduction programs identified in the Climate Action Plan and report on the progress made toward meeting the statewide greenhouse gas targets that were established in the Executive Order.



SOURCE: ARB 2007

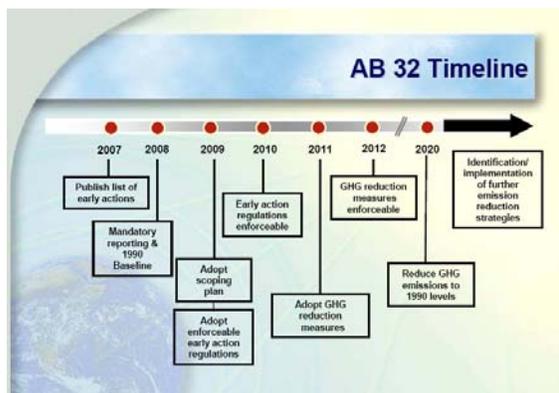
In accord with the requirements of the Executive Order, the first report to the Governor and the Legislature was released in March 2006 and will be issued bi-annually thereafter. The CAT Report to the Governor contains recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met.

California Global Warming Solutions Act of 2006 (AB 32)

In 2006, the California State Legislature adopted the California Global Warming Solutions Act of 2006. AB 32 establishes a cap on statewide greenhouse gas emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels. AB 32 charges the California Air Resources Board (CARB), the state agency charged with regulating statewide air quality, with implementation of the act. Under AB 32, greenhouse gases are defined as: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The regulatory steps laid out in AB 32 require CARB to: adopt early action measures to reduce GHGs; to establish a statewide greenhouse gas emissions cap for 2020 based on 1990 emissions; to adopt mandatory reporting rules for significant source of greenhouse gases; and to adopt a scoping plan indicating how emission reductions will be achieved via regulations, market mechanisms and other actions; and to adopt the regulations needed to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gases.

AB 32 requires that by January 1, 2008, the State Board shall determine what the statewide greenhouse gas emissions inventory was in 1990, and approve a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. While the level of 1990 GHG emissions has not yet been approved, CARB's most recent emission inventory indicates that California had annual emissions of 436 million metric tons of carbon dioxide equivalent (MMT CO₂e) in 1990 and 497 MMT CO₂e in 2004.



SOURCE: ARB 2007

The regulatory timeline laid out in AB 32 requires that by July 1, 2007, CARB adopt a list of discrete early action measures, or regulations, to be adopted and implemented by January 1, 2010. These actions will form part of the State's comprehensive plan for achieving greenhouse gas emission reductions. In June 2007, CARB adopted three discrete early action measures. These three new proposed regulations meet the definition of

“discrete early action greenhouse gas reduction measures,” which include the following: a low carbon fuel standard; reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture. CARB estimates that by 2020, the reductions from those three discrete early action measures would be approximately 13-26 MMT CO₂e.

CARB evaluated over 100 possible measures identified by the CAT for inclusion in the list of discrete early action measures. On October 25, 2007 CARB gave final approval to the list of Early Action Measures, which includes nine discrete measures and 35

additional measures, all of which are to be enforceable by January 1, 2010. AB 32 requires that by January 1, 2009, CARB adopt a scoping plan indicating how emission reductions will be achieved via regulations, market mechanisms and other actions.

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. This bill directs the OPR to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010. This bill also protects projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E) from claims of inadequate analysis of GHG as a legitimate cause of action. This latter provision will be repealed on January 1, 2010. Thus, this “protection” is highly limited to a handful of projects and for a short time period.



The Role of Air Districts in the CEQA Process

Air districts assume one of three roles in the CEQA process. They may be lead agencies when they are adopting regulations and air quality plans. In some instances, they can also be a lead agency when approving permits to construct or operate for applicants subject to district rules. However, in many cases where an air district permit is involved, another agency has broader permitting authority over the project and assumes the role of lead agency. In these situations, the air district becomes what is referred to as a responsible agency under CEQA. When CEQA documents are prepared for projects that do not involve discretionary approval of a district regulation, plan or permit, the air district may assume the role of a concerned or commenting agency. In this role, it is typical for air districts to comment on CEQA documents where there may be air quality-related adverse impacts, such as projects that may create significant contributions to existing violations of ambient standards, cause a violation of an ambient standard or create an exposure to toxic air contaminants or odors. In some cases, the air district may also act in an “advisory” capacity to a lead agency early on in its review of an application for a proposed development project.

A few air districts in California began developing significance thresholds for use in CEQA analyses in the late 1980’s and early 1990’s. By the mid-1990’s most air districts had developed CEQA thresholds for air quality analyses. Many of the districts have included in their guidance the analysis of rule development and permits that may be subject to CEQA.

What is Not Addressed in this Paper

Impacts of Climate Change to a Project

The focus of this paper is addressing adverse impacts to climate change and the ability to meet statewide GHG reduction goals caused by proposed new land development projects.



CEQA also requires an assessment of significant adverse impacts a project might cause by bringing development and people into an area affected by climate change (CEQA Guidelines §15126.2). For example, an area that

experiences higher average temperatures due to climate change may expose new development to more frequent exceedances and higher levels of ozone concentrations. Alternatively, a rise in sea level brought on by climate change may inundate new development locating in a low-lying area. The methodologies, mitigation and threshold approaches discussed in this paper do not specifically address the potential adverse impacts resulting from climate change that may affect a project.

Impacts from Construction Activity

Although construction activity has been addressed in the analytical methodologies and mitigation chapters, this paper does not discuss whether any of the threshold approaches adequately addresses impacts from construction activity. More study is needed to make this assessment or to develop separate thresholds for construction activity. The focus of this paper is the long-term adverse operational impacts of land use development.



Introduction

Any analysis of environmental impacts under CEQA includes an assessment of the nature and extent of each impact expected to result from the project to determine whether the impact will be treated as significant or less than significant. CEQA gives lead agencies discretion whether to classify a particular environmental impact as significant. "The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved," ref: CEQA Guidelines §15064(b) ("Guidelines"). Ultimately, formulation of a standard of significance requires the lead agency to make a policy judgment about where the line should be drawn distinguishing adverse impacts it considers significant from those that are not deemed significant. This judgment must, however, be based on scientific information and other factual data to the extent possible (Guidelines §15064(b)).

CEQA does not require that agencies establish thresholds of significance. Guidelines §15064.7(a) encourages each public agency "...to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which normally means the effect will be determined to be less than significant."

Once such thresholds are established, an impact that complies with the applicable threshold will "normally" be found insignificant and an impact that does not comply with the applicable threshold will "normally" be found significant.

Additionally, Guidelines §15064.7(b) requires that if thresholds of significance are adopted for general use as part of the lead agency's environmental review process they must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence.

While many public agencies adopt regulatory standards as thresholds, the standards do not substitute for a public agency's use of careful judgment in determining significance. They also do not replace the legal standard for significance (i.e., if there is a fair argument, based on substantial evidence in light of the whole record that the project may have a significant effect, the effect should be considered significant) (Guidelines §15064(f)(1). Also see *Communities for a Better Environment v. California Resource Agency* 103 Cal. App. 4th 98 (2002)). In other words, the adoption of a regulatory standard does not create an irrebuttable presumption that impacts below the regulatory standard are less than significant.

Summary of CEQA Thresholds at Air Districts

This section briefly summarizes the evolution of air district CEQA significance thresholds. Ventura County APCD, in 1980, was the first air district in California that formally adopted CEQA significance thresholds. Their first CEQA assessment document contained impact thresholds based on project type: residential, nonresidential, and government. Then, as now, the District’s primary CEQA thresholds applied only to ROG and NO_x. The 1980 Guidelines did not address other air pollutants.

Santa Barbara County APCD and the Bay Area AQMD adopted thresholds in 1985. The South Coast AQMD recommended regional air quality thresholds in 1987 for CO, SO₂, NO₂, particulates, ROG, and lead. Most of the other California air districts adopted CEQA guidance and thresholds during the 1990’s. Air districts have updated their thresholds and guidelines several times since they were first published.

Originally, most districts that established CEQA thresholds focused on criteria pollutants for which the district was nonattainment and the thresholds only addressed project level impacts. Updates during the 1990’s began to add additional air quality impacts such as odors, toxic air contaminants and construction. Several air districts also developed thresholds for General Plans that relied on an assessment of the plan consistency with the district’s air quality plans. A consistency analysis involves comparing the project’s land use to that of the general plan and the population and employment increase to the forecasts underlying the assumptions used to develop the air quality plan.

Most air district thresholds for CEQA are based on the threshold for review under the New Source Review (NSR). The NSR threshold level is set by district rule and is different depending on the nonattainment classification of the air district. Areas with a less severe classification have a higher NSR trigger level while the most polluted areas have the lowest NSR trigger level. Some districts, such as Ventura County APCD, have significantly lower CEQA thresholds that are not tied to the NSR requirements. In Ventura, one set of CEQA thresholds is 25 pounds per day for all regions of Ventura County, except the Ojai Valley. The second set of CEQA thresholds was set at 5 pounds per day for the Ojai Valley.

The Sacramento Metropolitan AQMD bases its thresholds for ozone precursors on the projected land use share of emission reductions needed for attainment. The emission reductions needed to reach attainment are based on commitments made in the state implementation plan (SIP) prepared for the federal clean air act.



CEQA Considerations in Setting Thresholds

Public agencies use significance thresholds to disclose to their constituents how they plan on evaluating and characterizing the severity of various environmental impacts that could be associated with discretionary projects that they review. Significance thresholds are also used to help identify the level of mitigation needed to reduce a potentially significant impact to a less than significant level and to determine what type



of an environmental document should be prepared for a project; primarily a negative declaration, mitigated negative declaration or an environmental impact report.

While public agencies are not required to develop significance thresholds, if they decide to develop them, they are required to adopt them by ordinance, resolution, rule or regulation through a

public process. A lead agency is not restrained from adopting any significance threshold it sees as appropriate, as long as it is based on substantial evidence. CEQA Guidelines §15064.7 encourages public agencies to develop and publish significance thresholds that are identifiable, quantitative, qualitative or performance level that the agency uses in the determination of the significance of environmental effects. The courts have ruled that a “threshold of significance” for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant.

Before an agency determines its course with regard to climate change and CEQA, it must be made clear that a threshold, or the absence of one, will not relieve a lead agency from having to prepare an EIR or legal challenges to the adequacy of an analysis leading to a conclusion, or lack of a conclusion, of significance under CEQA. CEQA has generally favored the preparation of an EIR where there is any substantial evidence to support a fair argument that a significant adverse environmental impact may occur due to a proposed project. This paper explores three alternative approaches to thresholds, including a no threshold option, a zero threshold option and a non-zero threshold option.

Fair Argument Considerations

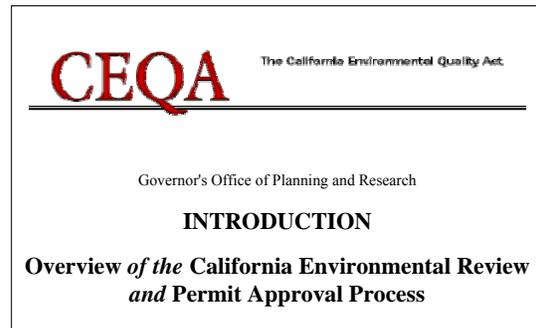
Under the CEQA fair argument standard, an EIR must be prepared whenever it can be fairly argued, based on substantial evidence in the administrative record, that a project may have a significant adverse effect on the environment. “Substantial evidence” comprises “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.” (Guidelines §15384) This means that if factual information is presented to the public agency that there is a reasonable possibility the project could have

a significant effect on the environment, an EIR is required even if the public agency has information to the contrary (Guidelines §15064 (f)).

The courts have held that the fair argument standard “establishes a low threshold for initial preparation of an EIR, which reflects a preference for resolving doubts in favor of environmental review.” (*Santa Teresa Citizen Action Group v. City of San Jose* [2003] 114 Cal.App.4th 689) Although the determination of whether a fair argument exists is made by the public agency, that determination is subject to judicial scrutiny when challenged in litigation. When the question is whether an EIR should have been prepared, the court will review the administrative record for factual evidence supporting a fair argument.

The fair argument standard essentially empowers project opponents to force preparation of an EIR by introducing factual evidence into the record that asserts that the project may have a significant effect on the environment. This evidence does not need to be conclusive regarding the potential significant effect.

In 1998, the Resources Agency amended the State CEQA Guidelines to encourage the use of thresholds of significance. Guidelines §15064 (h) provided that when a project’s impacts did not exceed adopted standards, the impacts were to be considered less than significant. The section went on to describe the types of adopted standards that were to be considered thresholds. Guidelines § 15064.7 provided that agencies may adopt thresholds of significance to guide their determinations of significance. Both of these sections were challenged when environmental groups sued the Resources Agency in 2000 over the amendments. The trial court concluded that §15064.7 was proper, if it was applied in the context of the fair argument standard.



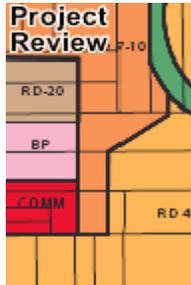
At the appellate court level, §15064(h) was invalidated.² Establishing a presumption that meeting an adopted standard would avoid significant impacts was “inconsistent with controlling CEQA law governing the fair argument approach.” The Court of Appeal explained that requiring agencies to comply with a regulatory standard “relieves the agency of a duty it would have under the fair argument approach to look at evidence beyond the regulatory standard, or in contravention of the standard, in deciding whether an EIR must be prepared. Under the fair argument approach, any substantial evidence supporting a fair argument that a project may have a significant environmental effect would trigger the preparation of an EIR.” (*Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98)

² Prior §15064(h) has been removed from the State CEQA Guidelines. Current §15064(h) discusses cumulative impacts.

In summary, CEQA law does not require a lead agency to establish significance thresholds for GHG. CEQA guidelines encourage the development of thresholds, but the absence of an adopted threshold does not relieve the agency from the obligation to determine significance.

Defensibility of CEQA Analyses

The basic purposes of CEQA, as set out in the State CEQA Guidelines, include: (1) informing decision makers and the public about the significant environmental effects of proposed projects; (2) identifying ways to reduce or avoid those impacts; (3) requiring the implementation of feasible mitigation measures or alternatives that would reduce or avoid those impacts; and (4) requiring public agencies to disclose their reasons for approving any project that would have significant and unavoidable impacts (Guidelines §15002). CEQA is enforced through civil litigation over procedure (i.e., did the public agency follow the correct CEQA procedures?) and adequacy (i.e., has the potential for impacts been disclosed, analyzed, and mitigated to the extent feasible?).



The California Supreme Court has held that CEQA is "to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Friends of Mammoth v. Board of Supervisors* [1972] 8 Cal.3d 247, 259) Within that context, the role of the courts is to weigh the facts in each case and apply their judgment. Although the court may rule on the adequacy of the CEQA work, the court is not empowered to act in the place of the public agency to approve or deny the project for which the CEQA document was prepared. Further, the court's review is limited to the evidence contained in the administrative record that was before the public agency when it acted on the project.

Putting aside the issue of CEQA procedure, the defensibility of a CEQA analysis rests on the following concerns:

- whether the public agency has sufficiently analyzed the environmental consequences to enable decision makers to make an intelligent decision;
- whether the conclusions of the public agency are supported by substantial evidence in the administrative record; and
- whether the agency has made a good faith effort at the full disclosure of significant effects.

CEQA analyses need not be perfect or exhaustive -- the depth and breadth of the analysis is limited to what is "reasonably feasible." (Guidelines §15151) At the same time, the analysis "must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed

project.” (Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376)

By itself, establishment of a GHG threshold will not insulate individual CEQA analyses from challenge. Defensibility depends upon the adequacy of the analysis prepared by the lead agency and the process followed. However, the threshold can help to define the boundaries of what is a reasonable analysis by establishing when an analysis will be required and the basic scope of that analysis. The threshold would attempt to define the point at which an analysis will be required and when a level of impact becomes significant, requiring preparation of an EIR. If the threshold includes recommendations for the method or methods of analysis, it can establish the minimum level of analysis to address this issue.

Considerations in Setting Thresholds for Stationary Source Projects

In many respects, the analysis of GHG emissions from stationary sources is much more straightforward than the analysis of land use patterns, forecasted energy consumption, and emissions from mobile sources. The reason is that, for the most part, the latter analyses depend largely on predictive models with myriad inputs and have a wider range of error. Emissions from stationary sources involve a greater reliance on mass and energy balance calculations and direct measurements of emissions from the same or similar sources. Energy demand is more directly tied to production, and even associated mobile source emissions will likely fall within narrower predictive windows.



Implementing CEQA Without a Threshold

A lead agency is not required to establish significance thresholds for GHG emissions from stationary sources. The lead agency may find that it needs more information or experience evaluating GHG from these types of projects to determine an appropriate significance threshold. As with other project types, the lead agency could conduct a project specific analysis to determine whether an environmental impact report is needed and to determine the level of mitigation that is appropriate. The agency might also rely on thresholds established for criteria pollutants as a screening method, and analyze GHG emissions (and require mitigation) from projects with emissions above the criteria pollutant thresholds. Over time, the agency could amass information and experience with specific project categories that would support establishing explicit thresholds. The lead agency may also choose to base local CEQA thresholds on state guidelines or on the category-specific reduction targets established by ARB in its scoping plan for implementing AB32. Resource constraints and other considerations associated with implementing CEQA without GHG thresholds for stationary sources would be similar to those outlined for other types of projects (see Chapter 5 – No Threshold Option).

Implementing CEQA with Threshold of Zero

A lead agency may find that any increase in GHG emissions is potentially significant under CEQA. The resources and other considerations for implementing a threshold of zero for stationary sources are the same as those outlined for other types of projects (see Chapter 6 – Zero Threshold Option).

Implementing CEQA with a Non-Zero Threshold

A lead agency may identify one or more non-zero thresholds for significance of emissions of GHG from stationary sources. The agency could elect to rely on existing thresholds for reviewing new or modified stationary sources of GHG, if the state or local air district has established any. The agency could also apply the threshold(s) established for non-stationary sources to GHG emissions from stationary sources. Significance thresholds could also be established by ordinance, rule, or policy for a given category of stationary sources; this approach is especially conducive to a tiered threshold approach. For example, the agency could establish significance and mitigation tiers for stationary compression-ignition diesel-fueled generators. Under such an approach, the project proponent could be first required to use a lower GHG-emitting power source if feasible, and if not, to apply mitigation based on the size of the generator and other defined considerations, such as hours of operation. Certain classes of generators could be found to be insignificant under CEQA (e.g., those used for emergency stand-by power only, with a limit on the annual hours of use). As with non-stationary projects, the goal of establishing non-zero thresholds is to maximize environmental protection, while minimizing resources used. Resource and other considerations outlined for non-stationary projects are applicable here (see Chapter 7 – Non-Zero Threshold Options).

Implementing CEQA with Different Thresholds for Stationary and Non-stationary Projects

Although a lead agency may apply the same thresholds to stationary and non-stationary projects, it is not required to do so. There are, in fact, some important distinctions between the two types of projects that could support applying different thresholds. The lead agency should consider the methods used to estimate emissions. Are the estimates a “best/worst reasonable scenario” or are they based on theoretical maximum operation? How accurate are the estimates (are they based on models, simulations, emission factors, source test data, manufacturer specifications, etc.)? To what extent could emissions be reduced through regulations after the project is constructed if they were found to be greater than originally expected (i.e., is it possible to retrofit emissions control technology onto the source(s) of GHG at a later date, how long is the expected project life, etc.)? Are there emission limits or emissions control regulations (such as New Source Review) that provide certainty that emissions will be mitigated? Generally, stationary source emissions are based on maximum emissions (theoretical or allowed under law or regulation), are more accurate, and are more amenable to retrofit at a later time than non-stationary source emissions. It is also more likely that category specific

rules or some form of NSR will apply to stationary sources than non-stationary projects. Notwithstanding, it is almost always more effective and cost-efficient to apply emission reduction technology at the design phase of a project. There are, therefore, a number of considerations that need to be evaluated and weighed before establishing thresholds – and which may support different thresholds for stationary and non-stationary projects. Furthermore, the considerations may change over time as new regulations are established and as emissions estimation techniques and control technology evolves.

Direct GHG Emissions from Stationary Sources



The main focus of this paper has been the consideration of projects that do not, in the main, involve stationary sources of air pollution, because stationary source projects are generally a smaller percentage of the projects seen by most local land use agencies. That said, some discussion of stationary sources is warranted. As the broader program for regulating GHG from these sources is developed, the strategies for addressing them

under CEQA will likely become more refined.

The primary focus of analysis of stationary source emissions has traditionally been those pollutants that are directly emitted by the source, whether through a stack or as fugitive releases (such as leaks). CAPCOA conducted a simplified analysis of permitting activity to estimate the number of stationary source projects with potentially significant emissions of greenhouse gases that might be seen over the course of a year. This analysis looked only at stationary combustion sources (such as boilers and generators), and only considered direct emissions. A lead agency under CEQA may see a different profile of projects than the data provided here suggest, depending on what other resources are affected by projects. In addition, air districts review like-kind replacements of equipment to ensure the new equipment meets current standards, but such actions might not constitute a project for many land use agencies or other media regulators. The data does provide a useful benchmark, however, for lead agencies to assess the order of magnitude of potential stationary source projects. A similar analysis is included for non-stationary projects in Chapter 7.

Table 1: Analysis of GHG Emissions from Stationary Combustion Equipment Permits³

	BAAQMD	SMAQMD	SJVUAPCD	SCAQMD
Total Applications for Year	1499	778	1535	1179
Affected at threshold of:				
900 metric tons/year	26	43	63	108
10,000 metric tons/year	7	5	26	8
25,000 metric tons/year	3	1	11	4

³ District data varies based on specific local regulations and methodologies.

Emissions from Energy Use

In addition to the direct emissions of GHG from stationary projects, CEQA will likely need to consider the project's projected energy use. This could include an analysis of opportunities for energy efficiency, onsite clean power generation (e.g., heat/energy recovery, co-generation, geothermal, solar, or wind), and the use of dedicated power contracts as compared to the portfolio of generally available power. In some industries, water use and conservation may provide substantial GHG emissions reductions, so the CEQA analysis should consider alternatives that reduce water consumption and wastewater discharge. The stationary project may also have the opportunity to use raw or feedstock materials that have a smaller GHG footprint; material substitution should be evaluated where information is available to do so.



Emissions from Associated Mobile Sources

The stationary project will also include emissions from associated mobile sources. These will include three basic components: emissions from employee trips, emissions from delivery of raw or feedstock materials, and emissions from product transport. Employee trips can be evaluated using trip estimation as is done for non-stationary projects, and mitigations would include such measures as providing access to and incentives for use of public transportation, accessibility for bicycle and pedestrian modes of transport, employer supported car or vanpools (including policies such as guaranteed rides home, etc). Upstream and downstream emissions related to goods movement can also be estimated with available models. The evaluation will need to determine the extent of the transport chain that should be included (to ensure that all emissions in the chain have been evaluated and mitigated, but to avoid double counting). Mitigations could include direct actions by operators who own their own fleet, or could be implemented through contractual arrangements with independent carriers; again, the evaluation will need to consider how far up and down the chain mitigation is feasible and can be reasonably required.



Comparing Emissions Changes Across Pollutant Categories

The potential exists for certain GHG reduction measures to increase emissions of criteria and toxic pollutants known to cause or aggravate respiratory, cardiovascular, and other health problems. For instance, GHG reduction efforts such as alternative fuels and methane digesters may create significant levels of increased pollutants that are detrimental to the health of the nearby population (e.g.; particulate matter, ozone precursors, toxic air contaminants). Such considerations should be included in any CEQA analysis of a project's environmental impacts. While there are many win-win

strategies that can reduce both GHG and criteria/toxic pollutant emissions, when faced with situations that involve tradeoffs between the two, the more immediate public health concerns that may arise from an increase in criteria or toxic pollutant emissions should take precedence. GHG emission reductions could be achieved offsite through other mitigation programs.

Introduction

Under state law, it is the purview of each lead agency to determine what, if any, significance thresholds will be established to guide its review of projects under CEQA. While the state does provide guidelines for implementing CEQA, the guidelines have left the decision of whether to establish thresholds (and if so, at what level) to individual lead agencies. Frequently, lead agencies consult with resource-specific agencies (such as air districts) for assistance in determining what constitutes a significant impact on that specific resource.

With the passage of AB 32, the ARB has broad authority to regulate GHG emissions as necessary to meet the emission reduction goals of the statute. This may include authority to establish emission reduction requirements for new land use projects, and may also enable them to recommend statewide thresholds for GHG under CEQA.

In developing this white paper, CAPCOA recognizes that, as the GHG reduction program evolves over time, GHG thresholds and other policies and procedures for CEQA may undergo significant revision, and that uniform statewide thresholds and procedures may be established. This paper is intended to serve as a resource for public agencies until such time that statewide guidance is established, recognizing that decisions will need to be made about GHG emissions from projects before such guidance is available. This paper is not, however, uniform statewide guidance. As stated before, it outlines several possible approaches without endorsing any one over the others.

Some air districts may choose to use this paper to support their establishment of guidance for GHG under CEQA, including thresholds. This paper does not, nor should it be construed to require a district to implement any of the approaches evaluated here. Decisions about whether to provide formal local guidance on CEQA for projects with GHG emissions, including the question of thresholds, will be made by individual district boards.

Each of the 35 air districts operates independently and has its own set of regulations and programs to address the emissions from stationary, area and mobile sources, consistent with state and federal laws, regulations, and guidelines. The independence of the districts allows specific air quality problems to be addressed on a local level. In addition, districts have also established local CEQA thresholds of significance for criteria pollutants – also to address the specific air quality problems relative to that particular district.

The overall goal of air district thresholds is to achieve and maintain health based air quality standards within their respective air basins and to reduce transport of emissions to other air basins. In establishing recommended thresholds, air districts consider the existing emission inventory of criteria pollutants and the amount of emission reductions needed to attain and maintain ambient air quality standards.

However, unlike criteria pollutants where individual districts are characterized by varying levels of pollutant concentrations and source types, greenhouse gases (GHG) and their attendant climate change ramifications are a global problem and, therefore, may suggest a uniform approach to solutions that ensure both progress and equity.

Under SB97, the Office of Planning and Research is directed to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions through CEQA by July 1, 2009. Those guidelines may recommend thresholds. As stated, this paper is intended to provide a common platform of information and tools to support local decision makers until such time that statewide guidance or requirements are promulgated.

Local Ability to Promulgate District-Specific GHG Thresholds

One of the primary reasons behind the creation of air districts in California is the recognition that some regions within the state face more critical air pollution problems than others and, as has often been pointed out – one size does not fit all. For example, a “Serious” federal nonattainment district would need greater emission reductions than a district already in attainment – and, therefore, the more “serious” district would set its criteria pollutant CEQA thresholds of significance much lower than the air district already in attainment.

The action of GHGs is global in nature, rather than local or regional (or even statewide or national). Ultimately there may be a program that is global, or at least national in scope. That said, actions taken by a state, region, or local government can contribute to the solution of the global problem. Local governments are not barred from developing and implementing programs to address GHGs. In the context of California and CEQA, lead agencies have the primary responsibility and authority to determine the significance of a project’s impacts.

Further, air districts have primary authority under state law for "control of air pollution from all sources, other than emissions from motor vehicles." (H&SC §40000) The term air contaminant or "air pollutant" is defined extremely broadly, to mean "any discharge, release, or other propagation into the atmosphere" and includes, but is not limited to, soot, carbon, fumes, gases, particulate matter, etc. Greenhouse gases and other global warming pollutants such as black carbon would certainly be included in this definition, just as the U.S. Supreme Court held in *Massachusetts v. EPA* that greenhouse gases were air pollutants under the federal Clean Air Act. Therefore, air districts have the primary authority to regulate global warming pollutants from nonvehicular sources. AB 32 does not change this result. Although it gives wide responsibility to CARB to regulate greenhouse gases from all sources, including nonvehicular sources, it does not preempt the districts. AB 32 specifically states That "nothing in this division shall limit or expand the existing authority of any district..."(H&SC § 38594). Thus, districts and CARB retain concurrent authority over nonvehicular source greenhouse gas emissions.

Introduction

The CEQA statutes do not require an air district or any lead agency to establish significance thresholds under CEQA for any pollutant. While there are considerations that support the establishment of thresholds (which are discussed in other sections of this document), there is no obligation to do so.

An air district or other lead agency may elect not to establish significance thresholds for a number of reasons. The agency may believe that the global nature of the climate change problem necessitates a statewide or national framework for consideration of environmental impacts. SB 97 directs OPR to develop “guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions by July 1, 2009,” and directs the California Resources Agency to certify and adopt the guidelines by June 30, 2010.



An agency may also believe there is insufficient information to support selecting one specific threshold over another. As described earlier, air districts have historically set CEQA thresholds for air pollutants in the context of the local clean air plan, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures due to toxic pollutants.

There is no current framework that would similarly manage impacts of greenhouse gas pollutants, although the CARB is directed to establish one by June 30, 2009, pursuant to AB 32. A local agency may decide to defer any consideration of thresholds until this framework is in place.

Finally, an agency may believe that the significance of a given project should be assessed on a case-by-case basis in the context of the project at the time it comes forward.

Implementing CEQA Without Significance Thresholds for GHG

The absence of a threshold does not in any way relieve agencies of their obligations to address GHG emissions from projects under CEQA. The implications of not having a threshold are different depending on the role the agency has under CEQA – whether it is acting in an advisory capacity, as a responsible agency, or as a lead agency.

Implications of No Thresholds for an Agency Acting in an Advisory Capacity

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to assess emissions and impacts, and mitigations for potentially significant impacts. Although districts will also address some of these issues on a project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues that

are program wide, and these are advisory (unless they have been established by regulation).

An air district that has not established significance thresholds for GHG will not provide guidance to local governments on this issue. This does not prevent the local government from establishing thresholds under its own authority. One possible result of this would be the establishment of different thresholds by cities and counties within the air district. Alternatively, the air district could advise local governments not to set thresholds and those jurisdictions may follow the air district's guidance.

It is important to note here (as has been clearly stated by the Attorney General in comments and filings) that lack of a threshold does *not* mean lack of significance. An agency may argue lack of significance for any project, but that argument would have to be carried forth on a case-by-case, project specific basis. By extension then, a decision not to establish thresholds for GHG is likely to result in a greater workload for responsible and lead agencies as they consider individual projects under CEQA.

Implications of No Thresholds for a Responsible Agency

If there are no established thresholds of significance, the significance of each project will have to be determined during the course of review. The responsible agency (e.g., the air district) will review each project referred by the lead agency. The review may be qualitative or quantitative in nature. A qualitative review would discuss the nature of GHG emissions expected and their potential effect on climate change as the district understands it. It could also include a discussion of the relative merits of alternative scenarios. A quantitative analysis would evaluate, to the extent possible, the expected GHG emissions; it would also need to evaluate their potential effect on climate change and might include corresponding analysis of alternatives. The air district, as a responsible agency, may also identify mitigation measures for the project.

The lack of established thresholds will make the determination of significance more resource intensive for each project. The district may defer to the lead agency to make this determination, however the district may be obligated, as a responsible agency, to evaluate the analysis and determination.



Implications of No Thresholds for a Lead Agency

The main impact of not having significance thresholds will be on the primary evaluation of projects by the lead agency. Without significance thresholds, the agency will have to conduct some level of analysis of every project to determine whether an environmental impact report is needed. There are three fundamental approaches to the case-by-case analysis of significance, including presumptions of significance or insignificance, or no presumption:

1. The agency can begin with a presumption of significance and the analysis would be used to support a case-specific finding of no significance. This is similar to establishing a threshold of zero, except that here, the “threshold” is rebuttable. This approach may result in a large number of projects proceeding to preparation of an environmental impact report. Because of the attendant costs, project proponents may challenge the determination of significance, although formal challenge is less likely than attempts to influence the determination.

2. The agency can begin with a presumption of insignificance, and the analysis would be used to support a case-specific finding of significance. A presumption of insignificance could be based on the perspective that it would be speculative to attempt to identify the significance of GHG emissions from a project relative to climate change on a global scale. This approach might reduce the number of projects proceeding to preparation of environmental impact reports. It is likely to have greater success with smaller projects than larger ones, and a presumption of *insignificance* may be more likely to be challenged by project opponents.

3. It is not necessary for the lead agency to have any presumption either way. The agency could approach each project from a *tabula rasa* perspective, and have the determination of significance more broadly tied to the specific context of the project; this approach is likely to be resource intensive, and creates the greatest uncertainty for project proponents. To the extent that it results in a lead agency approving similar projects based on different determinations of significance for GHG emissions, it may be more vulnerable to challenge from either proponents or opponents of the project. Alternatively, in the absence of either thresholds or presumptions, the lead agency could use each determination of significance to build its approach in the same way that subsequent judgments define the law.



Relevant Citations

The full text of relevant citations is in Appendix A.

Public Resources Code – §21082.2, Significant Effect on Environment; Determination; Environmental Impact Report Preparation.

State CEQA Guidelines – §15064, Determining the Significance of the Environmental Effects Caused by a Project.

Chapter 6

CEQA with a
GHG
Threshold of
Zero**Introduction**

If an air district or lead agency determines that any degree of project-related increase in GHG emissions would contribute considerably to climate change and therefore would be a significant impact, it could adopt a zero-emission threshold to identify projects that would need to reduce their emissions. A lead agency may determine that a zero-emission threshold is justified even if other experts may disagree. A lead agency is not prevented from adopting any significance threshold it sees as appropriate, as long as it is based on substantial evidence.

If the zero threshold option is chosen, all projects subject to CEQA would be required to quantify and mitigate their GHG emissions, regardless of the size of the project or the availability of GHG reduction measures available to reduce the project's emissions. Projects that could not meet the zero-emission threshold would be required to prepare environmental impact reports to disclose the unmitigable significant impact, and develop the justification for a statement of overriding consideration to be adopted by the lead agency.

**Implementing CEQA With a Zero Threshold for GHG**

The scientific community overwhelmingly agrees that the earth's climate is becoming warmer, and that human activity is playing a role in climate change. Unlike other environmental impacts, climate change is a global phenomenon in that all GHG emissions generated throughout the earth contribute to it. Consequently, both large and small GHG generators cause the impact. While it may be true that many GHG sources are individually too small to make any noticeable difference to climate change, it is also true that the countless small sources around the globe combine to produce a very substantial portion of total GHG emissions.

A zero threshold approach is based on a belief that, 1) all GHG emissions contribute to global climate change and could be considered significant, and 2) not controlling emissions from smaller sources would be neglecting a major portion of the GHG inventory.

CEQA explicitly gives lead agencies the authority to choose thresholds of significance. CEQA defers to lead agency discretion when choosing thresholds. Consequently, a zero-emission threshold has merits.

The CEQA review process for evaluating a project’s impact on global climate change under the zero threshold option would involve several components. Air quality sections would be written by lead agencies to include discussions on climate change in CEQA documents, GHG emissions would be calculated, and a determination of significance would be made. The local air districts would review and comment on the climate change discussions in environmental documents. Lead agencies may then revise final EIRs to accommodate air district comments. More than likely, mitigation measures will be specified for the project, and a mitigation monitoring program will need to be put in place to ensure that these measures are being implemented.

Since CEQA requires mitigation to a less than significant level, it is conceivable that many projects subjected to a zero threshold could only be deemed less than significant with offsite reductions or the opportunity to purchase greenhouse gas emission reduction credits. GHG emission reduction credits are becoming more readily available however the quality of the credits varies considerably. High quality credits are generated by actions or projects that have clearly demonstrated emission reductions that are real, permanent, verifiable, enforceable, and not otherwise required by law or regulation. When the pre- or post-project emissions are not well quantified or cannot be independently confirmed, they are considered to be of lesser quality. Similarly, if the reductions are temporary in nature, they are also considered to be poor quality. Adoption of a zero threshold should consider the near-term availability and the quality of potential offsets.

There are also environmental justice concerns about the effects of using offsite mitigations or emission reduction credits to offset, or mitigate, the impacts of a new project. Although GHGs are global pollutants, some of them are emitted with co-pollutants that have significant near-source or regional impacts. Any time that increases in emissions at a specific site will be mitigated at a remote location or using emission reduction credits, the agency evaluating the project should ensure that it does not create disproportionate impacts.

Administrative Considerations

If electing to pursue a zero threshold, an air district or lead agency should consider the administrative costs and the environmental review system capacity. Some projects that previously would have qualified for an exemption could require further substantial analysis, including preparation of a Negative Declaration (ND), a Mitigated Negative Declaration (MND) or an EIR. Moreover, the trade-offs between the volume of projects requiring review and the quality of consideration given to reviews should be considered. It may also be useful to consider whether meaningful mitigation can be achieved from smaller projects.



Consideration of Exemptions from CEQA

A practical concern about identifying GHG emissions as a broad cumulative impact is whether the zero threshold option will preclude a lead agency from approving a large set of otherwise qualified projects utilizing a Categorical Exemption, ND, or MND. The results could be a substantial increase in the number of EIR's. This is a valid and challenging concern, particularly for any threshold approach that is based on a zero threshold for net GHG emission increases.

CEQA has specified exceptions to the use of a categorical exemption. Specifically, CEQA Guidelines §15300.2 includes the following exceptions:

“(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.”

“(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.”

These CEQA Guidelines sections could be argued to mean that any net increase in GHG emissions would preclude the use of a categorical exemption. However, as described below, if the following can be shown, then the exceptions above could be argued not to apply:

- (1) Cumulative local, regional and/or state GHG emissions are being reduced or will be reduced by adopted, funded, and feasible measures in order to meet broader state targets.
- (2) Mandatory state or local GHG reduction measures would apply to the project's emissions such that broader GHG reduction goals would still be met and the project contributions would not be cumulatively considerable.
- (3) Project GHG emissions are below an adopted significance threshold designed to take into account the cumulative nature of GHG emissions.

A similar argument could be made relative to the use of a ND (provided no additional mitigation (beyond existing mandates) is required to control GHG emissions) and to the use of a MND instead of an EIR. However, due to the “fair argument” standard, which is discussed in Chapter 3, caution is recommended in use of a ND or MND unless all three elements above can be fully supported through substantial evidence and there is no substantial evidence to the contrary. Establishing a significance threshold of zero is likely to preclude the use of a categorical exemption.

Relevant Citations

The full text of relevant citations is in Appendix A.

Public Resources Code – §21004, Mitigating or Avoiding a Significant Effect; Powers of Public Agency.

State CEQA Guidelines – §15064, Determining the Significance of the Environmental Effects Caused by a Project.

State CEQA Guidelines – §15130, Discussion of Cumulative Impacts.

State CEQA Guidelines – §15064.7, Thresholds of Significance.

Introduction

A non-zero threshold could minimize the resources spent reviewing environmental analyses that do not result in real GHG reductions or to prevent the environmental review system from being overwhelmed. The practical advantages of considering non-zero thresholds for GHG significance determinations can fit into the concept regarding whether the project’s GHG emissions represent a “considerable contribution to the cumulative impact” and therefore warrant analysis.

Specifying a non-zero threshold could be construed as setting a *de minimis* value for a cumulative impact. In effect, this would be indicating that there are certain GHG emission sources that are so small that they would not contribute substantially to the global GHG budget. This could be interpreted as allowing public agencies to approve certain projects without requiring any mitigation of their GHG. Any threshold framework should include a proper context to address the *de minimis* issue. However, the CEQA Guidelines recognize that there may be a point where a project’s contribution, although above zero, would not be a *considerable contribution* to the cumulative impact and, therefore, not trigger the need for a significance determination.

GHG emissions from all sources are under the purview of CARB and as such may eventually be “regulated” no matter how small. Virtually all projects will result in some direct or indirect release of GHG. However, a decision by CARB to regulate a class of sources does not necessarily mean that an individual source in that class would constitute a project with significant GHG impacts under CEQA. For example, CARB has established criteria pollutant emission standards for automobiles, but the purchase and use of a single new car is not considered a project with significant impacts under CEQA. At the same time, it is important to note that it is likely that all meaningful sources of emissions, no matter how small are likely to be considered for regulation under AB 32. It is expected that projects will have to achieve some level of GHG reduction to comply with CARB’s regulations meant to implement AB 32. As such all projects will have to play a part in reducing our GHG emissions budget and no project, however small, is truly being considered *de minimis* under CARB’s regulations.

This chapter evaluates a range of conceptual approaches toward developing GHG significance criteria. The air districts retained the services of J&S an environmental consulting, firm to assist with the development of a Statute and Executive Order-based threshold (Approach 1) and a tiered threshold (Approach 2) based on a prescribed list of tasks and deliverables. Time and financial constraints limited the scope and depth of this analysis, however, the work presented here may be useful in developing interim guidance while AB 32 is being implemented. J&S recognized that approaches other than those described here could be used.

As directed, J&S explored some overarching issues, such as:

- what constitutes “new” emissions?

- how should “baseline emissions” be established?
- what is cumulatively “considerable” under CEQA?
- what is “business as usual” ? and
- should an analysis include “life-cycle” emissions?

The answers to these issues were key to evaluating each of the threshold concepts.

Approach 1 – Statute and Executive Order Approach

Thresholds could be grounded in existing mandates and their associated GHG emission reduction targets. A project would be required to meet the targets, or reduce GHG emissions to the targets, to be considered less than significant.

AB 32 and S-3-05 target the reduction of statewide emissions. It should be made clear that AB 32 and S-3-05 do not specify that the emissions reductions should be achieved through uniform reduction by geographic location or by emission source characteristics. For example, it is conceivable, although unlikely, that AB 32 goals could be achieved by new regulations that only apply to urban areas or that only apply to the transportation and/or energy sector. However, this approach to evaluating GHG under CEQA is based on the presumption that a new project must at least be consistent with AB 32 GHG emission reduction mandates.

The goal of AB 32 and S-3-05 is the significant reduction of future GHG emissions in a state that is expected to rapidly grow in both population and economic output. As such, there will have to be a significant reduction in the per capita GHG output for these goals to be met. CEQA is generally used to slow or zero the impact of new emissions, leaving the reduction of existing emission sources to be addressed by other regulatory means. With these concepts in mind, four options were identified for statute/executive order-based GHG significance thresholds and are described below.

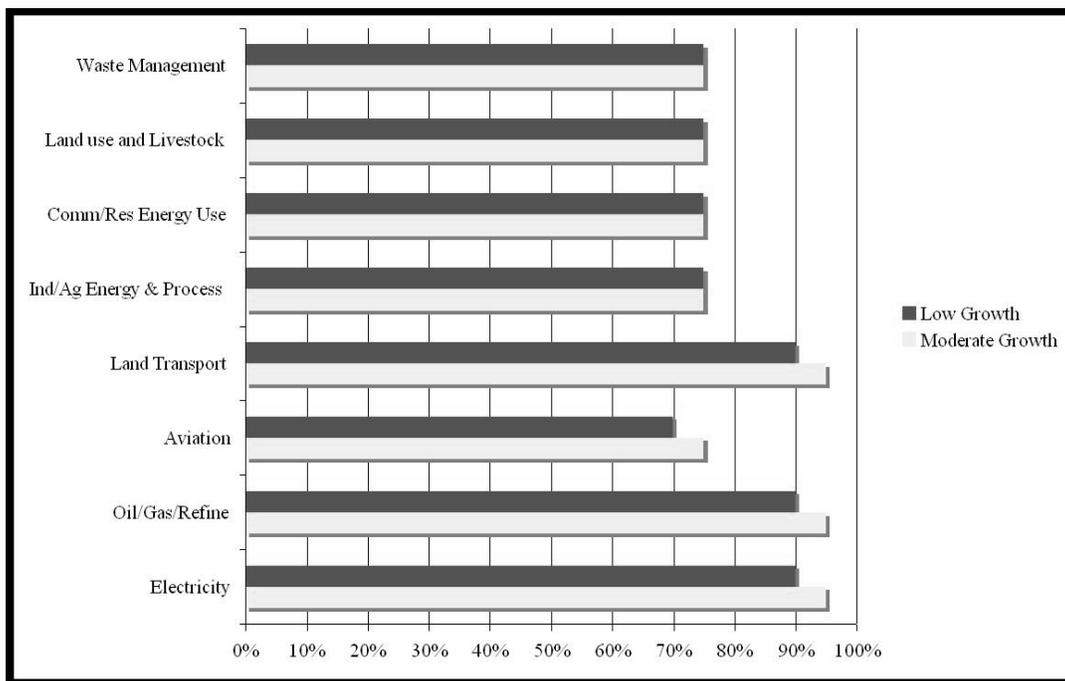
Threshold 1.1: AB 32/S-3-05 Derived Uniform Percentage-Based Reduction. AB 32 requires the state to reduce California-wide GHG emissions to 1990 levels by 2020. Reducing greenhouse gas emission levels from 2020 to 1990 levels could require a 28 to 33 percent reduction of business-as-usual GHG emissions depending on the methodology used to determine the future emission inventories. The exact percent reduction may change slightly once CARB finalizes its 1990 and 2020 inventory estimates. In this context, business-as-usual means the emissions that would have occurred in the absence of the mandated reductions. The details of the business-as-usual scenario are established by CARB in the assumptions it uses to project what the state’s GHG emissions would have been in 2020, and the difference between that level and the level that existed in 1990 constitutes the reductions that must be achieved if the mandated goals are to be met.

Chapter 7

CEQA with
Non-Zero GHG
Thresholds

- Approach 1: Statute and Executive Order
- 1.1: AB32/S-3-05 Derived Uniform Percentage-Based Reduction

This threshold approach would require a project to meet a percent reduction target based on the average reductions needed from the business-as-usual emission from all GHG sources. Using the 2020 target, this approach would require all discretionary projects to achieve a 33 percent reduction from projected business-as-usual emissions in order to be considered less than significant. A more restrictive approach would use the 2050 targets. S-3-05 seeks to reduce GHG emissions to 80 percent below 1990 levels by 2050. To reach the 2050 milestone would require an estimated 90 percent reduction (effective immediately) of business-as-usual emissions. Using this goal as the basis for a significance threshold may be more appropriate to address the long-term adverse impacts associated with global climate change. Note that AB 32 and S-3-05 set emission inventory goals at milestone years; it is unclear how California will progress to these goals in non-milestone years.



SOURCE: ARB 2007

Threshold 1.2: Uniform Percentage-Based (e.g.50%) Reduction for New Development.

This threshold is based on a presumption that new development should contribute a greater percent reduction from business-as-usual because greater reductions can be achieved at lower cost from new projects than can be achieved from existing sources. This approach would establish that new development emit 50 percent less GHG emissions than business-as-usual development. This reduction rate is greater than the recommended reduction rate for meeting the Threshold 1.1 2020 target (33 percent) but is significantly less restrictive than the Threshold 1.1 2050 target reduction rate (90 percent). If a 50 percent GHG reduction were achieved from new development, existing emissions would have to be reduced by 25 to 30 percent in order to meet the 2020 emissions goal depending on the year used to determine the baseline inventory. Although this reduction goal is reasonable for achieving the 2020 goal, it would not be possible to

reach the 2050 emissions target with this approach even if existing emissions were 100 percent controlled.

Threshold 1.3: Uniform Percentage-Based Reduction by Economic Sector. This threshold would use a discrete GHG reduction goal specific to the economic sector associated with the project. There would be specific reduction goals for each economic sector, such as residential, commercial, and industrial development. Specifying different reduction thresholds for each market sector allows selection of the best regulatory goal for each sector taking into account available control technology and costs. This approach would avoid over-regulating projects (i.e. requiring emissions to be controlled in excess of existing technology) or under-regulating projects (i.e. discouraging the use of available technology to control emissions in excess of regulations). This approach requires extensive information on the emission inventories and best available control technology for each economic sector. This data will be compiled as CARB develops its scoping plan under AB 32 and its implementing regulations; as a result, this approach will be more viable in the long term.

Threshold 1.4: Uniform Percentage-Based Reduction by Region. AB 32 and S-3-05 are written such that they apply to a geographic region (i.e. the entire state of California) rather than on a project or sector level. One could specify regions of the state such as the South Coast Air Basin, Sacramento Valley, or Bay Area which are required to plan (plans could be developed by regional governments, such as councils of governments) and demonstrate compliance with AB 32 and S-3-05 reduction goals at a regional level. To demonstrate that a project has less than significant emissions, one would have to show compliance with the appropriate regional GHG plan. Effectively this approach allows for analysis of GHG emissions at a landscape scale smaller than the state as a whole. Specifying regions in rough correlation to existing air basins or jurisdictional control allows for regional control of emissions and integration with regional emission reduction strategies for criteria and toxic air pollutants. Although differing GHG reduction controls for each region are possible, it is likely that all regions would be



Chapter 7

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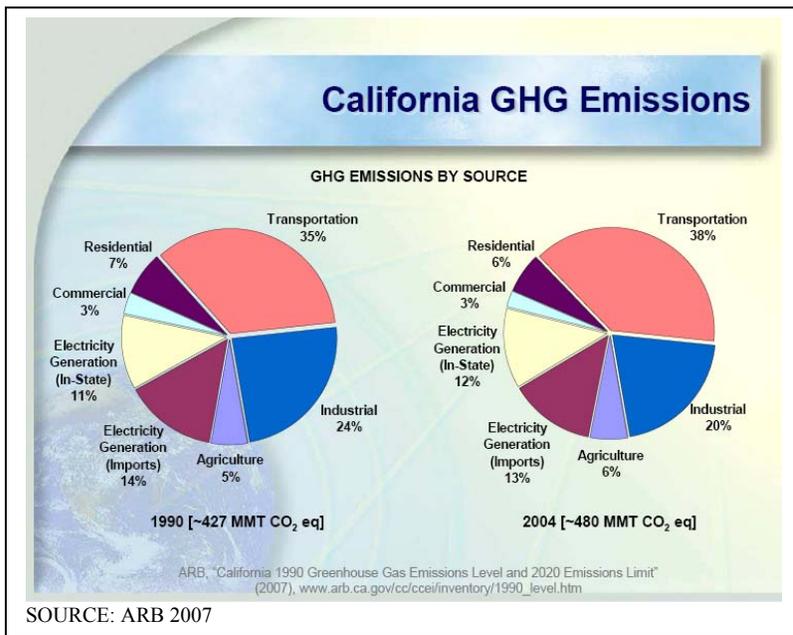
- Approach 1: Statute and Executive Order
- 1.4: Uniform % Based Reduction by Region

required to achieve 1990 emission inventories by the year 2020 and 80 percent less emissions by 2050. Threshold 1.4 is considered viable long-term significance criteria that is unlikely to be used in the short term.

Implementing CEQA Thresholds Based on Emission Reduction Targets

Characterizing Baseline and Project Emissions

While the population and economy of California is expanding, all new projects can be considered to contribute new emissions. Furthermore, GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. “Business-as-usual” is the projection of GHG emissions at a future date based on current technologies and regulatory requirements in absence of other reductions. For example to determine the future emissions from a power plant for “business-as-usual” one would multiply the projected energy throughput by the current emission factor for that throughput. If adopted regulations (such as those that may be



promulgated by CARB for AB 32) dictate that power plant emissions must be reduced at some time in the future, it is appropriate to consider these regulation standards as the new business-as-usual for a future date. In effect, business-as-usual will continue to evolve as regulations manifest. Note that “business-as-usual” defines the CEQA No Project conditions, but does not necessarily form the baseline under

CEQA. For instance, it is common to subtract the future traffic with and without a project to determine the future cumulative contribution of a project on traffic conditions. However, existing conditions at the time of issuance of the notice of preparation is normally the baseline.

Establishing Emission Reduction Targets

One of the obvious drawbacks to using a uniform percent reduction approach to GHG control is that it is difficult to allow for changes in the 1990 and future emission inventories estimates. To determine what emission reductions are required for new projects one would have to know accurately the 1990 budget and efficacy of other GHG promulgated regulations as a function of time. Since CARB will not outline its

regulation strategy for several more years, it is difficult to determine accurately what the new project reductions should be in the short term. Future updates to the 1990 inventory could necessitate changes in thresholds that are based on that inventory. It is important to note that it is difficult to create near term guidance for a uniform reduction threshold strategy since it would require considerable speculation regarding the implementation and effectiveness of forthcoming CARB regulations.

Of greater importance are the assumptions used to make the projected 2020 emission inventories. Projecting future inventories over the next 15-50 years involves substantial uncertainty. Furthermore, there are likely to be federal climate change regulations and possibly additional international GHG emission treaties in the near future. To avoid such speculation, this paper defines all future emission inventories as hypothetical business-as-usual projections.

This white paper is intended to support local decisions about CEQA and GHG in the near term. During this period, it is unlikely that a threshold based on emission reduction targets would need to be changed. However, it is possible that future inventory updates will show that targets developed on the current inventory were not stringent enough, or were more stringent than was actually needed.

Approach 2 – Tiered Approach

The goal of a tiered threshold is to maximize reduction predictability while minimizing administrative burden and costs. This would be accomplished by prescribing feasible mitigation measures based on project size and type, and reserving the detailed review of an EIR for those projects of greater size and complexity. This approach may require inclusion in a General Plan, or adoption of specific rules or ordinances in order to fully and effectively implement it.

A tiered CEQA significance threshold could establish different levels at which to determine if a project would have a significant impact. The tiers could be established based on the gross GHG emission estimates for a project or could be based on the physical size and characteristics of the project. This approach would then prescribe a set of GHG mitigation strategies that would have to be incorporated into the project in order for the project to be considered less than significant.

The framework for a tiered threshold would include the following:

- disclosure of GHG emissions for all projects;
- support for city/county/regional GHG emissions reduction planning;
- creation and use of a “green list” to promote the construction of projects that have desirable GHG emission characteristics;
- a list of mitigation measures;

- a decision tree approach to tiering; and
- quantitative or qualitative thresholds.

Decision-Tree Approach to Tiering

CEQA guidance that allows multiple methodologies to demonstrate GHG significance will facilitate the determination of significance for a broad range of projects/plans that would otherwise be difficult to address with a single non-compound methodology. Even though there could be multiple ways that a project can determine GHG significance using a decision-tree approach, only one methodology need be included in any single CEQA document prepared by the applicant. The presence of multiple methodologies to determine significance is designed to promote flexibility rather than create additional analysis overhead. Figure 1 shows a conceptual approach to significance determination using a tiered approach that shows the multiple routes to significance determination.

Figure 1 Detail Description

Figure 1 pictorially represents how an agency can determine a project's or plan's significance for CEQA analysis using the non-zero threshold methodology. The emissions associated with a project/plan are assumed to have a significant impact unless one can arrive at a less-than-significant finding by at least one of the methodologies below.

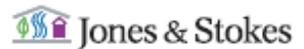
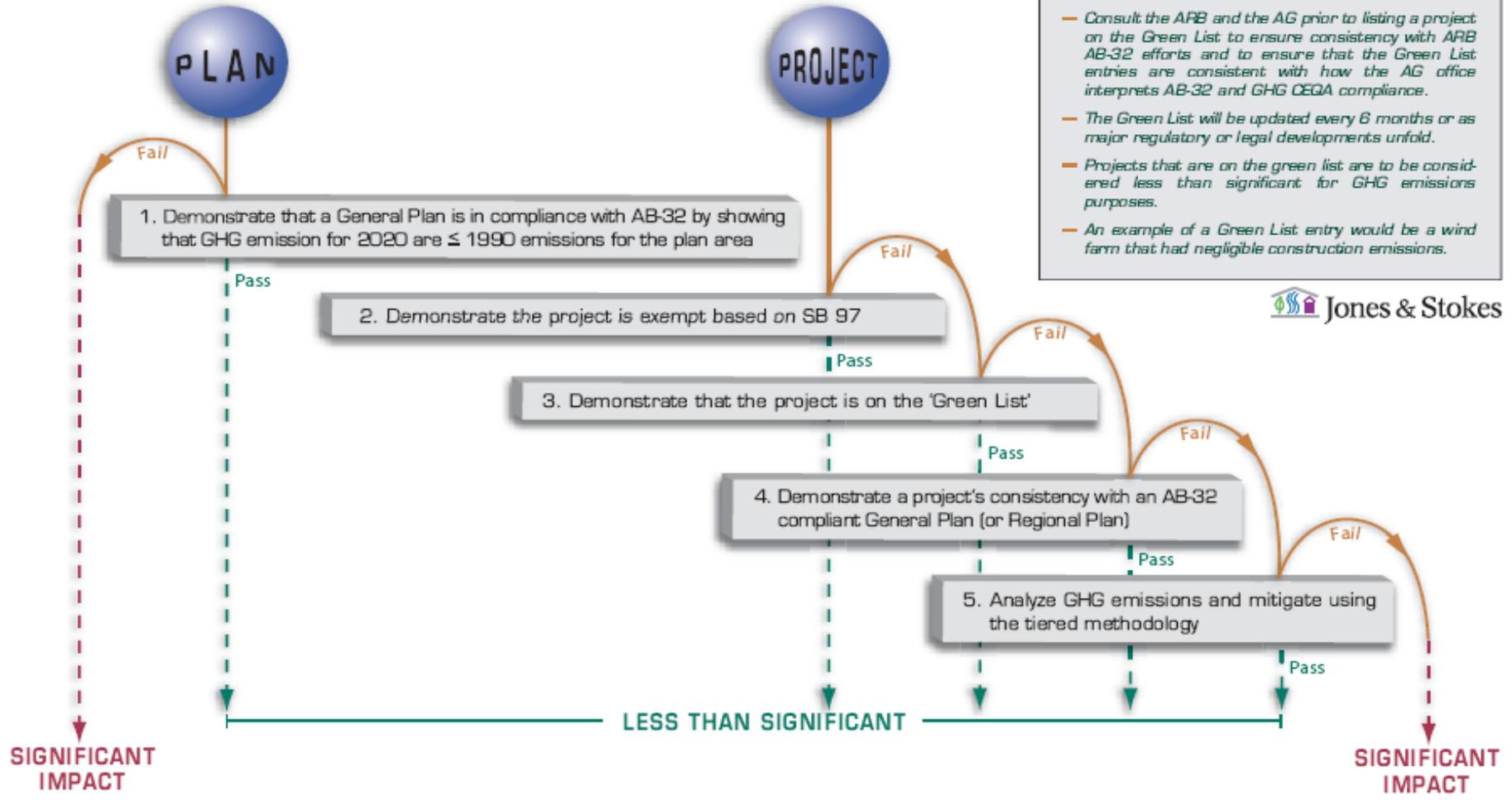
1. Demonstrate that a General Plan (GP) or Regional Plan is in Compliance with AB32
 - For most GPs or RPs this will require demonstration that projected 2020 emissions will be equal to or less than 1990 emissions.
 - GPs or RPs are expected to fully document 1990 and 2020 GHG emission inventories.
 - Projection of 2020 emissions is complicated by the fact that CARB is expected to promulgate emission reductions in the short term. Until explicit CARB regulations are in place, unmitigated GP 2020 emission inventories represent business-as-usual scenarios.
 - EIRs for GPs or RPs which demonstrate 2020 mitigated emissions are less than or equal to 1990 emissions are considered less than significant.
2. Demonstrate the Project is Exempt Based on SB 97
 - As specified in SB 97, projects that are funded under November 2006 Proposition 1B (Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act) and 1C (Disaster Preparedness and Flood Prevention Bond Act) may be exempt from analysis until January 1, 2010.

Climate Change Significance Criteria Flow Chart

- This chart pictorially represents how an agency can determine a project's or plan's significance for CEQA analysis.
- The emissions associated with a project/plan are assumed to have a significant impact unless one can arrive at a less-than-significant finding by at least one of the methodologies below.

The Green List (Conceptual Approach)

- Publish and update a list of projects and project types that are deemed a positive contribution to CA efforts to reduce GHG emissions.
- Consult the ARB and the AG prior to listing a project on the Green List to ensure consistency with ARB AB-32 efforts and to ensure that the Green List entries are consistent with how the AG office interprets AB-32 and GHG CEQA compliance.
- The Green List will be updated every 6 months or as major regulatory or legal developments unfold.
- Projects that are on the green list are to be considered less than significant for GHG emissions purposes.
- An example of a Green List entry would be a wind farm that had negligible construction emissions.



00802.07 GHG Emissions (rev 10/07)

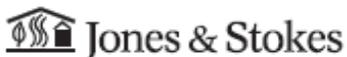


Figure 1
Climate Change Significance Criteria Flow Chart

- An exemption can be used in an ND, MND, or EIR to support a less than significant finding for GHG impacts.
3. Demonstrate that the Project is on the ‘Green List’
 - This list would include projects that are deemed a positive contribution to California efforts to reduce GHG emissions. If the project is of the type described on the Green List it is considered less than significant.
 - If the Green List entry description requires mitigation for impacts other than GHG, this methodology can be used in MNDs or EIRs; if the Green List entry does not require mitigation this methodology can be used in NDs, MNDs, or EIRs.
 4. Demonstrate a Project’s Compliance with a General Plan
 - If a project is consistent with an appropriate General Plan’s Greenhouse Gas Reduction Plan (GGRP), a project can be declared less than significant.
 - Note that at this time there are no known jurisdictions that have a GGRP that has been fully subject to CEQA review. While Marin County has adopted a forward-thinking GGRP and it is described in the most recent GP update, the associated EIR does not analyze the secondary environmental impacts of some of the GGRP measures such as tidal energy. While one can reference GGRPs that have not been reviewed fully in CEQA, to attempt to show a project’s compliance with such a plan as evidence that the project’s GHG emission contributions are less than significant may not be supported by substantial evidence that cumulative emissions are being fully addressed in the particular jurisdiction.
 - Compliance with a CEQA-vetted GGRP can be cited as evidence for all CEQA documents (Categorical Exemption, ND, MND, and EIR).
 5. Analyze GHG Emissions and Mitigate using the Tiered Methodology
 - Guidance and mitigation methodology for various development projects (residential, commercial, industrial) are listed in the form of tiered thresholds. If a project incorporates the mitigation measures specified in the tiered threshold tables the project is considered less than significant.
 - All project emissions are considered less than significant if they are less than the threshold(s).
 - If the tiered approach requires mitigation, this methodology can be used in MNDs or EIRs; if the tiered approach does not require mitigation this methodology can be used in NDs, MNDs, or EIRs.

The Green List

- The Green List would be a list of projects and project types that are deemed a positive contribution to California's efforts to reduce GHG emissions.
- If this approach is followed, it is suggested that CARB and the Attorney General (AG) are consulted prior to listing a project on the Green List to ensure consistency with CARB AB 32 efforts and to ensure that the Green List entries are consistent with how the AG office interprets AB 32 and GHG CEQA compliance.
- The Green List should be updated every 6 months or as major regulatory or legal developments unfold.
- Projects that are on the Green List are to be considered less than significant for GHG emissions purposes.
- A tentative list of potential Green List entries is presented below. Actual Green List entries should be far more specific and cover a broad range of project types and mitigation approaches. The list below is merely a proof-of-concept for the actual Green List.
 1. Wind farm for the generation of wind-powered electricity
 2. Extension of transit lines to currently developed but underserved communities
 3. Development of high-density infill projects with easily accessible mass transit
 4. Small hydroelectric power plants at existing facilities that generate 5 mw or less (as defined in Class 28 Categorical Exemption)
 5. Cogeneration plants with a capacity of 50 mw or less at existing facilities (as defined in Class 29 Cat Exemption)
 6. Increase in bus service or conversion to bus rapid transit service along an existing bus line
 7. Projects with LEED "Platinum" rating
 8. Expansion of recycling facilities within existing urban areas
 9. Recycled water projects that reduce energy consumption related to water supplies that services existing development
 10. Development of bicycle, pedestrian, or zero emission transportation infrastructure to serve existing regions

There are also several options for tiering and thresholds, as shown in Table 2 below. One could establish strictly numeric emissions thresholds and require mitigation to below the specific threshold to make a finding of less than significant. One could establish narrative emissions threshold that are based on a broader context of multiple approaches to GHG reductions and a presumption that projects of sufficiently low GHG intensity are less than significant.

In Concept 2A, a zero threshold would be applied to projects and thus only projects that result in a reduction of GHG emissions compared to baseline emissions would be less than significant absent mitigation. All projects would require quantified inventories. All projects that result in a net increase of GHG emissions would be required to mitigate their emissions to zero through direct mitigation or through fees or offsets or the impacts

Table 2: Approach 2 Tiering Options

	Concept 2A Zero	Concept 2B Quantitative	Concept 2C Qualitative
Tier 1	Project results in a net reduction of GHG emissions <i>Less than Significant</i>	Project in compliance with an AB 32-compliant General/Regional Plan, on the Green List, or below Tier 2 threshold. Level 1 Reductions (Could include such measures as: bike parking, transit stops for planned route, Energy Star roofs, Energy Star appliances, Title 24, water use efficiency, etc.) <i>Less than Significant</i>	Project in compliance with an AB 32-compliant General/Regional Plan, on the Green List, or below Tier 2 threshold. Level 1 Reductions (See measures under 2B) <i>Less than Significant</i>
Tier 2	Project results in net increase of GHG emissions Mitigation to zero (including offsets) <i>Mitigated to Less than Significant</i>	Above Tier 2 threshold Level 2 Mitigation (Could include such measures as: Parking reduction beyond code, solar roofs, LEED Silver or Gold Certification, exceed Title 24 by 20%, TDM measures, etc.) <i>Mitigated to Less than Significant</i>	Above Tier 2 threshold Level 2 Mitigation (See measures under 2B) <i>Mitigated to Less than Significant</i>
Tier 3	Mitigation infeasible to reduce emissions to zero (e.g., cost of offsets infeasible for project or offsets not available) <i>Significant and Unavoidable</i>	Above Tier 2 threshold With Level 1, 2 Mitigation Level 3 Mitigation: (Could include such measures as: On-site renewable energy systems, LEED Platinum certification, Exceed Title 24 by 40%, required recycled water use for irrigation, zero waste/high recycling requirements, mandatory transit passes, offsets/carbon impact fees) <i>Mitigated to Less than Significant</i>	Above Tier 3 thresholds Quantify Emissions, Level 3 Mitigation (see measures under 2B), and Offsets for 90% of remainder <i>Significance and Unavoidable</i>

would be identified as significant and unavoidable. This could be highly problematic and could eliminate the ability to use categorical exemptions and negative declarations for a wide range of projects.

In Concepts 2B and 2C, the first tier of a tiered threshold includes projects that are within a jurisdiction with an adopted greenhouse gas reduction plan (GGRP) and General Plan/Regional Plan that is consistent with AB 32 (and in line with S-3-05), or are on the Green List, or are below the Tier 2 threshold. All Tier 1 projects would be required to implement mandatory reductions required due to other legal authority (Level 1 reductions) such as AB 32, Title 24, or local policies and ordinances. With Level 1

reduction measures, qualifying Tier 1 projects would be considered less than significant without being required to demonstrate mitigation to zero.

In Concept 2B, the Tier 2 threshold would be quantitative, and quantified inventories would be required. Several quantitative threshold options are discussed below. A more comprehensive set of Level 2 mitigation would be required. If the project's emissions still exceed the Tier 2 threshold, an even more aggressive set of Level 3 mitigation measures would be required including offsets (when feasible) to reduce emissions below the Tier 2 threshold.

In Concept 2C, there would be two thresholds, a lower Tier 2 threshold (the "low bar") and a higher Tier 3 threshold (the "high bar"). The Tier 2 threshold would be the significance threshold for the purposes of CEQA and would be qualitative in terms of units (number of dwelling units, square feet of commercial space, etc.) or a per capita ratio. Projects above the Tier 2 threshold would be required to implement the comprehensive set of Level 2 mitigation. Projects below the Tier 2 threshold would not be required to quantify emissions or reductions. The Tier 3 threshold would be a threshold to distinguish the larger set of projects for which quantification of emissions would be required. Level 3 mitigation would be required and the project would be required to purchase offsets (when feasible) in the amount of 90 percent of the net emissions after application of Level 1 reductions and Level 2 and 3 mitigation. A variant on Concept 2C would be to require mandatory Level 3 mitigation without quantification and offsets.

Approach 2 Threshold Options

Seven threshold options were developed for this approach. The set of options are framed to capture different levels of new development in the CEQA process and thus allow different levels of mitigation. Options range from a zero first-tier threshold (Threshold 2.1) up to a threshold for GHG that would be equivalent to the capture level (i.e., number of units) of the current criteria pollutant thresholds used by some air districts (Threshold 2.4). The decision-based implementation approach discussed above could be used for any of these options. Table 3 below compares the results of each of the approaches discussed here.

Threshold 2.1: Zero First Tier Tiered Threshold.

This option would employ the decision tree concept and set the first tier cut-point at zero. The second tier cut-point could be one of the qualitative or quantitative thresholds discussed below. First-tier projects would be required to implement a list of very feasible and readily available mitigation measures.

Threshold 2.2: Quantitative Threshold Based on Market Capture

A single quantitative threshold was developed in order to ensure capture of 90 percent or more of likely future discretionary developments. The objective was to set the emission

threshold low enough to capture a substantial fraction of future residential and non-residential development that will be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions.

The quantitative threshold was created by using the following steps:

- Reviewing data from four diverse cities (Los Angeles in southern California and Pleasanton, Dublin, and Livermore in northern California) on pending applications for development.
- Determining the unit (dwelling unit or square feet) threshold that would capture approximately 90 percent of the residential units or office space in the pending application lists.
- Based on the data from the four cities, the thresholds selected were 50 residential units and 30,000 square feet of commercial space.
- The GHG emissions associated with 50 single-family residential units and 30,000 square feet of office were estimated and were found to be 900 metric tons and 800 metric tons, respectively. Given the variance on individual projects, a single threshold of 900 metric tons was selected for residential and office projects.
- A 900 metric ton threshold was also selected for non-office commercial projects and industrial projects to provide equivalency for different projects in other economic sectors.
- If this threshold is preferred, it is suggested that a more robust data set be examined to increase the representativeness of the selected thresholds. At a minimum, a diverse set of at least 20 cities and/or counties from throughout the state should be examined in order to support the market capture goals of this threshold. Further, an investigation of market capture may need to be conducted for different commercial project types and for industrial projects in order to examine whether multiple quantitative emissions thresholds or different thresholds should be developed.

The 900-ton threshold corresponds to 50 residential units, which corresponds to the 84th percentile of projects in the City of Los Angeles, the 79th percentile in the City of Pleasanton, the 50th percentile in the City of Livermore and the 4th percentile in the City of Dublin. This is suggestive that the GHG reduction burden will fall on larger projects that will be a relatively small portion of overall projects within more developed central cities (Los Angeles) and suburban areas of slow growth (Pleasanton) but would be the higher portion of projects within moderately (Livermore) or more rapidly developing areas (Dublin). These conclusions are suggestive but not conclusive due to the small sample size. The proposed threshold would exclude the smallest proposed developments

from potentially burdensome requirements to quantify and mitigate GHG emissions under CEQA. While this would exclude perhaps 10 percent of new residential development, the capture of 90 percent of new residential development would establish a strong basis for demonstrating that cumulative reductions are being achieved across the state. It can certainly serve as an interim measure and could be revised if subsequent regulatory action by CARB shows that a different level or different approach altogether is called for.

The 900-ton threshold would correspond to office projects of approximately 35,000 square feet, retail projects of approximately 11,000 square feet, or supermarket space of approximately 6,300 square feet. 35,000 square feet would correspond to the 46th percentile of commercial projects in the City of Los Angeles, the 54th percentile in the City of Livermore, and the 35th percentile in the City of Dublin. However, the commercial data was not separated into office, retail, supermarket or other types, and thus the amount of capture for different commercial project types is not known. The proposed threshold would exclude smaller offices, small retail (like auto-parts stores), and small supermarkets (like convenience stores) from potentially burdensome requirements to quantify and mitigate GHG emissions under CEQA but would include many medium-scale retail and supermarket projects.

The industrial sector is less amenable to a unit-based approach given the diversity of projects within this sector. One option would be to adopt a quantitative GHG emissions threshold (900 tons) for industrial projects equivalent to that for the residential/commercial thresholds described above. Industrial emissions can result from both stationary and mobile sources. CARB estimates that their suggested reporting threshold for stationary sources of 25,000 metric tons accounts for more than 90 percent of the industrial sector GHG emissions (see Threshold 2.3 for 25,000 metric ton discussion). If the CARB rationale holds, then a 900 metric ton threshold would likely capture at least 90 percent (and likely more) of new industrial and manufacturing sources. If this approach is advanced, we suggest further examination of industrial project data to determine market capture.

This threshold would require the vast majority of new development emission sources to quantify their GHG emissions, apportion the forecast emissions to relevant source categories, and develop GHG mitigation measures to reduce their emissions.

Threshold 2.3: CARB Reporting Threshold

CARB has recently proposed to require mandatory reporting from cement plants, oil refineries, hydrogen plants, electric generating facilities and electric retail providers, cogeneration facilities, and stationary combustion sources emitting $\geq 25,000$ MT CO₂e/yr. AB 32 requires CARB to adopt a regulation to require the mandatory reporting and verification of emissions. CARB issued a preliminary draft version of its proposed reporting requirements in August 2007 and estimates that it would capture 94 percent of the GHG emissions associated with stationary sources.

This threshold would use 25,000 metric tons per year of GHG as the CEQA significance level. CARB proposed to use the 25,000 metric tons/year value as a reporting threshold, not as a CEQA significance threshold that would be used to define mitigation requirements. CARB is proposing the reporting threshold to begin to compile a statewide emission inventory, applicable only for a limited category of sources (large industrial facilities using fossil fuel combustion).

A 25,000 metric ton significance threshold would correspond to the GHG emissions of approximately 1,400 residential units, 1 million square feet of office space, 300,000 square feet of retail, and 175,000 square feet of supermarket space. This threshold would capture far less than half of new residential or commercial development.

As noted above, CARB estimates the industrial-based criteria would account for greater than 90 percent of GHG emissions emanating from stationary sources. However, industrial and manufacturing projects can also include substantial GHG emissions from mobile sources that are associated with the transportation of materials and delivery of products. When all transportation-related emissions are included, it is unknown what portion of new industrial or manufacturing projects a 25,000-ton threshold would actually capture.

An alternative would be to use a potential threshold of 10,000 metric tons considered by the Market Advisory Committee for inclusion in a Greenhouse Gas Cap and Trade System in California. A 10,000 metric ton significance threshold would correspond to the GHG emissions of approximately 550 residential units, 400,000 square feet of office space, 120,000 square feet of retail, and 70,000 square feet of supermarket space. This threshold would capture roughly half of new residential or commercial development.

Threshold 2.4: Regulated Emissions Inventory Capture

Most California air districts have developed CEQA significance thresholds for NO_x and ROG emissions to try to reduce emissions of ozone precursors from proposed sources that are not subject to NSR pre-construction air quality permitting. The historical management of ozone nonattainment issues in urbanized air districts is somewhat analogous to today's concerns with greenhouse gas emissions in that regional ozone concentrations are a cumulative air quality problem caused by relatively small amounts of NO_x and ROG emissions from thousands of individual sources, none of which emits enough by themselves to cause elevated ozone concentrations. Those same conditions apply to global climate change where the environmental problem is caused by emissions from a countless number of individual sources, none of which is large enough by itself to cause the problem. Because establishment of NO_x/ROG emissions CEQA significance thresholds has been a well-tested mechanism to ensure that individual projects address cumulative impacts and to force individual projects to reduce emissions under CEQA, this threshold presumes the analogy of NO_x/ROG emission thresholds could be used to develop similar GHG thresholds.

The steps to develop a GHG emission threshold based on the NOx/ROG analogy were as follows:

- For each agency, define its NOx/ROG CEQA thresholds.
- For each agency, define the regional NOx/ROG emission inventory the agency is trying to regulate with its NOx/ROG thresholds.
- For each agency, calculate the percentage of the total emission inventory for NOx represented by that agency's CEQA emission threshold. That value represents the "minimum percentage of regulated inventory" for NOx.
- The current (2004) California-wide GHG emission inventory is 499 million metric tons per year of CO₂ equivalent (MMT CO₂e). Apply the typical "minimum percentage of regulated inventory" value to the statewide GHG inventory, to develop a range of analogous GHG CEQA thresholds.

The preceding methodology was applied to two different air quality districts: the Bay Area Air Quality Management District (BAAQMD), a mostly-urbanized agency within which most emissions are generated from urban areas; and the San Joaquin Valley Air Pollution Control District (SJVAPCD), which oversees emissions emanating in part from rural areas that are generated at dispersed agricultural sources and area sources. For example, in the Bay Area the NOx threshold is 15 tons/year. The total NOx inventory for 2006 was 192,000 tons/year (525 tons/day). The threshold represents 0.008 percent of the total NOx inventory. Applying that ratio to the total statewide GHG emissions inventory of 499 MMT CO₂e (2004) yields an equivalent GHG threshold of 39,000 MMT CO₂e.

The range of analogous CEQA GHG thresholds derived from those two agencies is tightly clustered, ranging from 39,000 to 46,000 tons/year. A 39,000 to 46,000 metric ton threshold would correspond to the GHG emissions of approximately 2,200 to 2,600 residential units, 1.5 to 1.8 million square feet of office space, 470,000 to 560,000 square feet of retail, and 275,000 to 320,000 square feet of supermarket space. This threshold would capture far less than half of new residential or commercial development. Similarly, this threshold would capture less of new industrial/manufacturing GHG emissions inventory than Thresholds 2.2 or 2.3.

Threshold 2.5: Unit-Based Thresholds Based on Market Capture

Unit thresholds were developed for residential and commercial developments in order to capture approximately 90 percent of future development. The objective was to set the unit thresholds low enough to capture a substantial fraction of future housing and commercial developments that will be constructed to accommodate future statewide population and job growth, while setting the unit thresholds high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions. Sector-based thresholds were created by using the same steps

and data used to create Threshold 2.2- Quantitative Threshold Based on Market Capture above.

The distribution of pending application data suggests that the GHG reduction burden will fall on larger projects that will be a relatively small portion of overall projects within more developed central cities and suburban areas of slow growth but would be the higher portion of projects within moderately or rapidly developing areas. The proposed threshold would exclude the smallest proposed developments from potentially burdensome requirements to quantify and mitigate GHG emissions under CEQA. While this would exclude perhaps 10 percent of new residential development, the capture of 90 percent of new residential development would establish a strong basis for demonstrating that cumulative reductions are being achieved across the state. It can certainly serve as an interim measure and could be revised if subsequent regulatory action by CARB shows that a different level or different approach altogether is called for.

A similar rationale can be applied to the development of a commercial threshold. Threshold 2.5 would exclude many smaller businesses from potentially burdensome requirements to quantify and mitigate GHG emissions under CEQA. It should be noted that the GHG emissions of commercial projects vary substantially. For example, the carbon dioxide emissions associated with different commercial types were estimated as follows:

- 30,000 square-foot (SF) office = 800 metric tons/year CO₂
- 30,000 SF retail = 2,500 metric tons/year CO₂
- 30,000 SF supermarket = 4,300 metric tons/year CO₂

Thus, in order to assure appropriate market capture on an emissions inventory basis, it will be important to examine commercial project size by type, instead of in the aggregate (which has been done in this paper).

The industrial sector is less amenable to a unit-based approach given the diversity of projects within this sector. One option would be to use a quantitative threshold of 900 tons for industrial projects in order to provide for rough equivalency between different sectors. Industrial emissions can result from both stationary and mobile sources. However, if the CARB rationale for > 90 percent stationary source capture with a threshold of 25,000 metric tons holds, then a 900 metric ton threshold would likely capture at least 90 percent (and likely more) of new industrial sources. Further examination of unit-based industrial thresholds, such as the number of employees or manufacturing floor space or facility size, may provide support for a unit-based threshold based on market capture.

This threshold would require the vast majority of new development emission sources to quantify their GHG emissions, apportion the forecast emissions to relevant source categories, and develop GHG mitigation measures to reduce their emissions.

Threshold 2.6. Projects of Statewide, Regional, or Areawide Significance

For this threshold, a set of qualitative, tiered CEQA thresholds would be adopted based on the definitions of “projects with statewide, regional or areawide significance” under the Guidelines for California Environmental Quality Act, CCR Title 14, Division 6, Section 15206(b).

Project sizes defined under this guideline include the following:

- Proposed residential development of more than 500 dwelling units.
- Proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.
- Proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.
- Proposed hotel/motel development of more than 500 rooms.
- Proposed industrial, manufacturing or processing plant or industrial park planned to house more than 1,000 persons, or encompassing more than 600,000 square feet of floor space.

These thresholds would correspond to the GHG emissions of approximately 9,000 metric tons for residential projects, 13,000 metric tons for office projects, and 41,000 metric tons for retail projects. These thresholds would capture approximately half of new residential development and substantially less than half of new commercial development. It is unknown what portion of the new industrial or manufacturing GHG inventory would be captured by this approach.

Threshold 2.7 Efficiency-Based Thresholds

For this approach, thresholds would be based on measurements of efficiency. For planning efforts, the metric could be GHG emissions per capita or per job or some combination thereof. For projects, the metric could be GHG emission per housing unit or per square foot of commercial space. In theory, one could also develop metrics for GHG emissions per dollar of gross product to measure the efficiency of the economy.

This approach is attractive because it seeks to benchmark project GHG intensity against target levels of efficiency. The thresholds would need to be set such that there is reasonably foreseeable and sufficient reductions compared to business as usual to support meeting AB 32 and S-3-05 goals in time (in combination with command and control regulations). Because this approach would require substantial data and modeling to fully develop, this is a concept considered as a potential future threshold and not appropriate

Chapter 7

- CEQA with Non-Zero GHG Thresholds
 - Approach 2: Tiered
 - 2.7: Efficiency-Based Thresholds

for interim guidance in the short term. Thus, it is not evaluated in the screening evaluation in the next section.

Table 3 compares the results for each of the approaches.

Table 3: Comparison of Approach 2 Tiered Threshold Options

Threshold	GHG Emission Threshold (metric tons/year)	Future Development Captured by GHG Threshold
2.1: Zero Threshold	0 tons/year	All
2.2: Quantitative Threshold Based on Market Capture	~900 tons/year	Residential development > 50 dwelling units Office space > 36,000 ft ² Retail space >11,000 ft ² Supermarkets >6,300 ft ² small, medium, large industrial
2.3: CARB GHG Mandatory Reporting Threshold OR Potential Cap and Trade Entry Level	25,000 metric tons/year OR 10,000 metric tons/year	Residential development >1,400 dwelling units OR 550 dwelling units Office space >1 million ft ² OR 400,000 ft ² Retail space >300,000 ft ² OR 120,000 ft ² Supermarkets >175,000 ft ² OR 70,000 ft ² medium/larger industrial
2.4: Regulated Inventory Capture	40,000 – 50,000 metric tons/year	Residential development >2,200 to 2,600 dwelling units Office space >1.5 to 1.8 million ft ² Retail space >470,000 to 560,000 ft ² Supermarkets >270,000 to 320,000 ft ² medium/larger industrial
2.5: Unit-Based Threshold Based on Market Capture	Not applicable.	Residential development >50 dwelling units Commercial space >50,000 ft ² > small, medium, large industrial (with GHG emissions > 900 tonsCO ₂ e)
2.6: Projects of Statewide, Regional, or Areawide Significance	Not applicable.	Residential development >500 dwelling units Office space >250,000 ft ² Retail space >500,000 ft ² Hotels >500 units Industrial project >1,000 employees Industrial project >40 acre or 650,000 ft ²
2.7: Efficiency-Based Thresholds	TBD tons/year/person TBD tons/year/unit	Depends on the efficiency measure selected.

Implementing CEQA With Tiered Thresholds

Several issues related to Approach 2 are addressed below:

1. *Some applications of this approach may need to be embodied in a duly approved General Plan, or in some other formal regulation or ordinance to be fully enforceable.* Because CEQA does not expressly provide that projects may be deemed insignificant based on implementation of a set of mitigations, this approach may need to be supported with specific and enforceable mechanisms adopted with due public process.
2. *How would this concept affect adoption of air district rules and regulations?* Proposed air district rules and regulations may be subject to CEQA like other projects and plans. Thus, if significance thresholds were adopted by an APCD or AQMD, then they could also apply to air district discretionary actions. If GHG emissions would be increased by a rule or regulation for another regulated pollutant, that would be a potential issue for review under CEQA.
3. *Mitigation measures may not be all-inclusive; better measures now or new future technology would make these measures obsolete.* The mandatory mitigation measures could be periodically updated to reflect current technology, feasibility, and efficiency.
4. *Total reduction may not be quantified or difficult to quantify.* CEQA only requires the adoption of feasible mitigation and thus the reduction effectiveness of required mitigation should not be in question. However, the precise reduction effectiveness may indeed be difficult to identify. As described above, if a quantitative threshold is selected as the measure of how much mitigation is mandated, then best available evidence will need to be used to estimate resultant GHG emissions with mitigation adoption. If a qualitative threshold is selected, then it may not be necessary to quantify reductions.
5. *Difficult to measure progress toward legislative program goals.* One could require reporting of project inventories to the Climate Action Registry, air district, or regional council of governments, or other suitable body. Collection of such data would allow estimates of the GHG intensity of new development over time, which could be used by CARB to monitor progress toward AB 32 goals.
6. *Measures may have adverse impacts on other programs.* The identification of mandatory mitigation will need to consider secondary environmental impacts, including those to air quality.
7. *Consideration of life-cycle emissions.* In many cases, only direct and indirect emissions may be addressed, rather than life-cycle emissions. A project applicant has traditionally been expected to only address emissions that are closely related and within the capacity of the project to control and/or influence. The long chain

8. of economic production resulting in materials manufacture, for example, involves numerous parties, each of which in turn is responsible for the GHG emissions associated with their particular activity. However, there are situations where a lead agency could reasonably determine that a larger set of upstream and downstream emissions should be considered because they are being caused by the project and feasible alternatives and mitigation measures may exist to lessen this impact.

Approach 2 Tiered Threshold with Mandatory Mitigation

As shown in Table 2, due to the cumulative nature of GHG emissions and climate change impacts, there could be a level of mandatory reductions and/or mitigation for all projects integrated into a tiered threshold approach. In order to meet AB 32 mandates by 2020 and S-3-05 goals, there will need to be adoption of GHG reduction measures across a large portion of the existing economy and new development. As such, in an effort to support a determination under CEQA that a project has a less than considerable contribution to significant cumulative GHG emissions, mitigation could be required on a progressively more comprehensive basis depending on the level of emissions.

- Level 1 Reductions – These reduction measures would apply to all projects and would only consist of AB 32 and other local/state mandates. They would be applied to a project from other legal authority (not CEQA). Level 1 reductions could include such measures as bike parking, transit stops for planned routes, Energy Star roofs, Energy Star appliances, Title 24 compliance, water use efficiency, and other measures. All measures would have to be mandated by CARB or local regulations and ordinances.
- Level 2 Mitigation – Projects that exceed the determined threshold would be required to first implement readily available technologies and methodologies with widespread availability. Level 2 Mitigation could include such measures as: parking reduction below code minimum levels, solar roofs, LEED Silver or Gold Certification, exceed Title 24 building standards by 20 percent, Traffic Demand Management (TDM) measures, and other requirements.
- Level 3 Mitigation - If necessary to reduce emissions to the thresholds, more extensive mitigation measures that represent the top tier of feasible efficiency design would also be required. Level 3 Mitigation could include such measures as: on-site renewable energy systems, LEED Platinum certification, exceed Title 24 building requirements by 40 percent, required recycled water use for irrigation, zero waste/high recycling requirements, mandatory transit pass provision, and other measures.
- Offset Mitigation – If, after adoption of all feasible on-site mitigation, the project is still found to exceed a Tier 2 quantitative threshold, or exceed a Tier 3 qualitative threshold, or if a project cannot feasibly implement the mandatory on-site mitigation, then purchases of offsets could be used for mitigation. In the case

of a quantitative threshold, the amount of purchase would be to offset below the Tier 2 significance threshold. In the case of a qualitative threshold, the amount of purchase could be to offset GHG emissions overall to below the lowest equivalent GHG emissions among the Tier 2 qualitative thresholds. With Threshold 2.5, this would be approximately 900 tons of GHG emissions (corresponding to 50 residential units). With Threshold 2.6, this would be approximately 9,000 tons (corresponding to 500 residential units). Alternatively, one could require purchase of offsets in the amount of a set percentage (such as 90% or 50% for example) of the residual GHG emissions (after other mitigation). As discussed earlier, any decision to include or require the use of emission reduction credits (or offsets) must consider issues of availability, quality, and environmental justice.

Substantial Evidence Supporting Different Thresholds

If a project can be shown by substantial evidence not to increase GHG emissions relative to baseline emissions, then no fair argument will be available that the project contributes considerably to a significant cumulative climate change impact.

It is more challenging to show that a project that increases GHG emissions above baseline emissions does not contribute considerably to a significant cumulative climate change impact. It is critical therefore, to establish an appropriate cumulative context, in which, although an individual project may increase GHG emissions, broader efforts will result in net GHG reductions.

Approach 1-based thresholds that by default will require an equal level of GHG reductions from the existing economy (Thresholds 1.1, 1.3, and 1.4) may be less supportable in the short run (especially before 2012) than Approach 1.2 (which requires new development to be relatively more efficient than a retrofitted existing economy). This is because, prior to 2012, there will only be limited mandatory regulations implementing AB 32 that could address the existing economy in a truly systematic way that can be relied upon to demonstrate that overall GHG reduction goals can be achieved by 2020. Approach 1.2 will still rely on substantial reductions in the existing economy but to a lesser degree.

Approach 1-based thresholds that would spread the mitigation burden across a sector (Threshold 1.3) or across a region (Threshold 1.4) will allow for tradeoffs between projects or even between municipalities. In order to demonstrate that a sector or a region is achieving net reductions overall, there would need to be feasible, funded, and mandatory requirements in place promoting an overall reduction scheme, in order for a project to result in nominal net increased GHG emissions.

Approach 2-based thresholds that capture larger portions of the new development GHG inventory (Thresholds 2.2 and 2.5) would promote growth that results in a smaller increase in GHG emissions; they may therefore be more supportable than thresholds that do not and that have a greater reliance on reductions in the existing economy (Thresholds

2.3, 2.4, and 2.6), especially in the next three to five years. With an established cumulative context that demonstrates overall net reductions, all threshold approaches could be effective in ensuring growth and development that significantly mitigates GHG emissions growth in a manner that will allow the CARB to achieve the emission reductions necessary to meet AB 32 targets. In that respect, all of these thresholds are supported by substantial evidence.

Evaluation of Non-Zero Threshold Options

Overarching issues concerning threshold development are reviewed below. Where appropriate, different features or application of the two conceptual approaches and the various options for thresholds under each conceptual approach described above are analyzed. The screening evaluation is summarized in Tables 4 (Approach 1) and 5 (Approach 2). The summary tables rate each threshold for the issues discussed below based on the level of confidence (low, medium or high) ascribed by J&S. The confidence levels relate to whether a threshold could achieve a particular attribute, such as emission reduction effectiveness. For example, a low emission reduction effectiveness rating means the threshold is not expected to capture a relatively large portion of the new development inventory.

As described above, Threshold 2.7 is not included in this evaluation because the data to develop an efficiency-based threshold has not been reviewed at this time and because this threshold is not considered feasible as an interim approach until more detailed inventory information is available across the California economy.

What is the GHG Emissions Effectiveness of Different Thresholds?

Effectiveness was evaluated in terms of whether a threshold would capture a large portion of the GHG emissions inventory and thus require mitigation under CEQA to control such emissions within the larger framework of AB 32. In addition, effectiveness was also evaluated in terms of whether a threshold would require relatively more or less GHG emissions reductions from the existing economy verses new development. This is presumptive that gains from the existing economy (through retrofits, etc.) will be more difficult and inefficient relative to requirements for new development.

Approach 1-based thresholds that require equivalent reductions relative to business-as-usual (Thresholds 1.1, 1.3, and 1.4) for both the existing and new economy will be less effective than thresholds that support lower-GHG intensity new development (Approach 1.2). However, since Approach 1-based thresholds do not establish a quantitative threshold below which projects do not have to mitigate, the market capture for new development is complete.

Approach 2-based thresholds can be more or less effective at capturing substantial portions of the GHG inventory associated with new development depending on where the quantitative or qualitative thresholds are set. Lower thresholds will capture a broader range of projects and result in greater mitigation. Based on the review of project data for

the select municipalities described in the Approach 2 section above, thresholds based on the CARB Reporting Threshold/Cap and Trade Entry Level (Threshold 2.4) or CEQA definitions of “Statewide, Regional or Areawide” projects (Threshold 2.6) will result in a limited capture of the GHG inventory. Lower quantitative or qualitative thresholds (Thresholds 2.1, 2.2 and 2.5) could result in capture of greater than 90 percent of new development.

Are the Different Thresholds Consistent with AB 32 and S-3-05?

Thresholds that require reductions compared to business-as-usual for all projects or for a large portion of new development would be consistent with regulatory mandates. In time, the required reductions will need to be adjusted from 2020 (AB 32) to 2050 (S-3-05) horizons, but conceptually broad identification of significance for projects would be consistent with both of these mandates. Thresholds that exclude a substantial portion of new development would likely not be consistent, unless it could be shown that other more effective means of GHG reductions have already been, or will be adopted, within a defined timeframe.

All Approach 1-based thresholds would be consistent with AB 32 and S-3-05 if it can be demonstrated that other regulations and programs are effective in achieving the necessary GHG reduction from the existing economy to meet the overall state goals.

Approach 2-based thresholds that include substantive parts of the new development GHG inventory (Thresholds 2.1, 2.2 and 2.5) will be more consistent with AB 32 and S-3-05 than those that do not (Thresholds 2.3, 2.4, and 2.6) unless it can be demonstrated that other regulations and programs are effective in achieving the necessary GHG reduction from the existing economy to meet the overall state goals.

What are the Uncertainties Associated with Different Thresholds?

All thresholds have medium to high uncertainties associated with them due to the uncertainty associated with the effectiveness of AB 32 implementation overall, the new character of GHG reduction strategies on a project basis, the immaturity of GHG reduction technologies or infrastructure (such as widespread biodiesel availability), and the uncertainty of GHG reduction effectiveness of certain technologies (such as scientific debate concerning the relative lifecycle GHG emissions of certain biofuels, for example).

In general, Approach 1-based thresholds have higher uncertainties than Approach 2 thresholds because they rely on a constantly changing definition of business-as-usual. Threshold 1.2, with its relatively smaller reliance on the existing economy for GHG reductions has relatively less uncertainty than other Approach 1 thresholds. Thresholds that spread mitigation more broadly (Thresholds 1.3 and 1.4) have less uncertainty by avoiding the need for every project to mitigate equally.

Approach 2 thresholds with lower quantitative (2.1 and 2.2) or qualitative (2.5) thresholds will have uncertainties associated with the ability to achieve GHG reductions

from small to medium projects. Approach 2 thresholds with higher quantitative (2.3, 2.4) or qualitative (2.6) thresholds will have uncertainties associated with the ability to achieve relatively larger GHG reductions from the existing economy.

What are Other Advantages/Disadvantages of the Different Thresholds?

Thresholds with a single project metric (Thresholds 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, and 2.6) will be easier to apply to individual projects and more easily understood by project applicants and lead agencies broadly. Thresholds that spread mitigation across sectors (1.3) or regions (1.4), while simple in concept, will require adoption of more complicated cross-jurisdictional reduction plans or evaluation of broad sector-based trends in GHG intensity reduction over time. Approach 1 options would require all projects to quantify emissions in order to determine needed reductions relative to business-as-usual (which will change over time as described above). Concepts that are unit-based (Threshold 2.5 and 2.6) will not result in thresholds that have equal amount of GHG emissions, and thus equity issues may arise.

Table 4: Non-Zero Threshold Evaluation Matrix – Approach 1

Approach 1	1.1	1.2	1.3	1.4
	28% - 33% Reduction from BAU by 2020 by Project	50% Reduction from BAU by 2020 by Project	28% - 33% Reduction by 2020 by Sector	28% - 33% Reduction by 2020 by Region
<i>GHG Emissions Reduction Effectiveness</i>	Low - Captures all new projects but relies on a high level of reductions from the existing economy.	Medium - Captures all new projects and has a more realistic level of reductions from the existing economy.	Low - Captures all new projects but relies on a high level of reductions from the existing economy.	Low - Captures all new projects but relies on a high level of reductions from the existing economy.
<i>Economic Feasibility</i>	Low - Some projects will not be able to afford this level of reduction without effective market-based mechanisms like offsets.	Low - Some projects will not be able to afford this level of reduction without effective market-based mechanisms like offsets.	Medium - Sectors as a whole will be better able to achieve reductions than individual projects.	Low - Some regions and newly developed areas may not be able to afford this level of reduction without effective market-based mechanisms like offsets.
<i>Technical Feasibility</i>	Medium - Some projects will not be able to achieve this level of reduction without effective market-based mechanisms like offsets	Low - Relatively larger set of projects will not be able to achieve this level of reduction without effective market-based mechanisms like offsets	High - Some projects will not be able to achieve this level of reduction without effective market-based mechanisms like offsets	Medium - Some regions and newly developed areas may not be able to afford this level of reduction without effective market-based mechanisms like offsets.
<i>Logistical Feasibility</i>	Low - Absent broader reductions strategies, each project may reinvent the wheel each time to achieve mandated reductions.	Low - Absent broader reductions strategies, each project may reinvent the wheel each time to achieve mandated reductions.	Low - Absent broader reductions strategies, each project may reinvent the wheel each time to achieve mandated reductions.	Low - Absent broader reductions strategies, each project may reinvent the wheel each time to achieve mandated reductions.
<i>Consistency with AB-32 and S-03-05</i>	Medium - Would require heavy reliance on command and control gains.	High	Medium-High - Would rely on command and control gains, but would allow sectoral flexibility.	Medium-High - Would rely on command and control gains, but would allow regional flexibility.
<i>Cost Effectiveness</i>	Low - Will require all types of projects to reduce the same regardless of the cost/ton of GHG reductions.	Low - Will require all types of projects to reduce the same regardless of the cost/ton of GHG reductions.	Low/Medium - Allows tradeoffs within sector between high and low cost reduction possibilities but not between sectors.	Low/Medium - Allows tradeoffs within region between high and low cost reduction possibilities, but not between regions.
<i>Uncertainties</i>	High - BAU changes over time. Ability to reduce GHG emissions from existing economy will take years to demonstrate. Ability to limit GHG emissions from other new development will take years to demonstrate.	Medium/High - BAU changes over time. Ability to limit GHG emissions from other new development will take years to demonstrate.	High - BAU changes over time. Ability to reduce GHG emissions from existing economy will take years to demonstrate. Ability to limit GHG emissions from other new development will take years to demonstrate.	High - BAU changes over time. Ability to reduce GHG emissions from existing economy will take years to demonstrate. Ability to limit GHG emissions from other new development will take years to demonstrate.
<i>Other Advantages</i>	Simple/easy to explain.	Simple/easy to explain.	Spreads mitigation broadly	Spreads mitigation broadly
<i>Other Disadvantages</i>	Requires all projects to quantify emissions.	Requires all projects to quantify emissions.	Requires all projects to quantify emissions.	Requires all projects to quantify emissions.

Table 5: Non-Zero Threshold Evaluation Matrix – Approach 2

Approach 2	2.1	2.2	2.3	2.4	2.5	2.6
	Zero Threshold	Quantitative (900 tons)	Quantitative CARB Reporting Threshold/Cap and Trade (25,000 tons/ 10,000 tons)	Quantitative Regulated Inventory Capture (~40,000 - 50,000 tons)	Qualitative Unit-Based Thresholds	Statewide, Regional or Areawide (CEQA Guidelines 15206(b)).
<i>GHG Emissions Reduction Effectiveness</i>	High - Captures all sources.	High - Market capture at >90%. Captures diverse sources.	Medium - Moderate market capture.	Low - Low market capture.	High - Market capture at ~90%. Captures diverse sources; excl. smallest proj.	Medium - Moderate market capture. Excludes small and med. projects.
<i>Economic Feasibility</i>	Low - Early phases will be substantial change in BAU, esp. for smaller projects; may be infeasible to mitigate.	Medium - Early phases will be substantial change in BAU, esp. for smaller projects; may be infeasible to mitigate.	High - Large projects have greater ability to absorb cost.	High - Large projects have greater ability to absorb cost.	Medium - Early phases will be substantial change in BAU, esp. for smaller projects; may be infeasible to mitigate.	High - Large projects have greater ability to absorb cost.
<i>Technical Feasibility</i>	Low - Early phases will be substantial change in BAU, esp. for smaller projects; may be infeasible to mitigate.	Medium - Early phases will be substantial change in BAU, esp. for smaller projects; may be inefficient to mitigate.	High - Greater opportunities for multiple reduction approaches.	High - Greater opportunities for multiple reduction approaches.	Medium - Early phases will be substantial change in BAU, particularly for smaller projects may be inefficient to mitigate.	High - Greater opportunities for multiple reduction approaches.
<i>Logistical Feasibility</i>	Low - Unless fee or offset basis, very difficult to mitigate all projects.	Medium - BMPs broadly written to allow diversity; new req. will take time to integrate into new dev.	High - Less mitigation.	High - Less mitigation.	Medium - BMPs broadly written to allow diversity; new req. will take time to integrate into new dev.	High - Less mitigation.
<i>Consistency with AB-32 and S-03-05</i>	High - Market capture.	High - Market capture at >90%.	Low - Would rely on command and control success heavily.	Low - Would rely on command and control success heavily.	Medium - Need to demonstrate adequate market capture over time.	Low - Would rely on command and control success heavily.
<i>Cost Effectiveness</i>	Low - Will result in inefficient mitigation approaches. Efficiency will improve in time.	Medium - Emphasis is on new dev., req. for mitigation will result in inefficient mitigation approaches in early phases. Efficiency will improve in time.	Medium - Relies on command and control reductions for existing economy more heavily. With focus on larger projects, eff. of mitigation for new dev. high.	Medium - Relies on command and control reductions for existing economy more heavily. With focus on larger projects, eff. of mitigation for new dev. high.	Medium - Emphasis is on new dev.; req. for mitigation will result in inefficient mitigation approaches in early phases. Efficiency will improve in time.	Medium - Relies on command and control reductions for existing economy more heavily. With focus on larger projects, eff. of mitigation for new dev. high.
<i>Uncertainties</i>	High - Time to adapt for res. and comm. sectors. Ability to mitigate without market-based mechanism for smaller projects unlikely.	Medium/High - Time to adapt for res. and comm. sectors. Ability to mitigate without market-based mechanism for smaller projects uncertain.	High - Gains from command and control likely longer to be realized.	High - Gains from command and control likely longer to be realized.	Medium/High - Time to adapt for res. and comm. sectors. Ability to mitigate without market-based mechanism for smaller projects uncertain.	High - Gains from command and control likely longer to be realized.
<i>Other Advantages</i>	Single threshold.	Single threshold. BMPs can be updated. Greenlist can be updated.	Single threshold. Does not change CEQA processing for most projects. CARB inventory = project inv.. All projects treated same.	Single threshold. Does not change CEQA processing for most projects. Follows established SIP practice.	BMPs can be updated. Greenlist can be updated. Unit-Based thresholds can be updated.	Existing guideline. Does not change CEQA processing for most projects. Endorsed by Cal. Chapter of the APA.
<i>Other Disadvantages</i>	Requires all projects to quantify emissions.	Requires nearly all projects to quantify emissions.			Sectoral projects have different GHG emis. Only largest projects to quantify emis.	Sectoral projects have different GHG emissions.

Introduction

This chapter evaluates the availability of various analytical methods and modeling tools that can be applied to estimate the greenhouse gas emissions from different project types subject to CEQA. This chapter will also provide comments on the suitability of the methods and tools to accurately characterize a project's emissions and offer recommendations for the most favorable methodologies and tools available. Some sample projects will be run through the methodologies and modeling tools to demonstrate what a typical GHG analysis might look like for a lead agency to meet its CEQA obligations. The air districts retained the services of EDAW environmental consultants to assist with this effort.

Methodologies/Modeling Tools

There are wide varieties of discretionary projects that fall under the purview of CEQA. Projects can range from simple residential developments to complex expansions of petroleum refineries to land use or transportation planning documents. It is more probably than not, that a number of different methodologies would be required by any one project to estimate its direct and indirect GHG emissions. Table 10 contains a summary of numerous modeling tools that can be used to estimate GHG emissions associated with various emission sources for numerous types of project's subject to CEQA. The table also contains information about the models availability for public use, applicability, scope, data requirements and its advantages and disadvantages for estimating GHG emissions.

In general, there is currently not one model that is capable of estimating all of a project's direct and indirect GHG emissions. However, one of the models identified in Table 9 would probably be the most consistently used model to estimate a project's direct GHG emissions based on the majority of projects reviewed in the CEQA process. The Urban Emissions Model (URBEMIS) is designed to model emissions associated with development of urban land uses. URBEMIS attempts to summarize criteria air pollutants and CO₂ emissions that would occur during construction and operation of new development. URBEMIS is publicly available and already widely used by CEQA practitioners and air districts to evaluate criteria air pollutants emissions against air district-adopted significance thresholds. URBEMIS is developed and approved for statewide use by CARB. The administrative reasons for using URBEMIS are less important than the fact that this model would ensure consistency statewide in how CO₂ emissions are modeled and reported from various project types.

One of the shortfalls of URBEMIS is that the model does not contain emission factors for GHGs other than CO₂, except for methane (CH₄) from mobile-sources, which is converted to CO₂e. This may not be a major problem since CO₂ is the most important GHG from land development projects. Although the other GHGs have a higher global warming potential, a metric used to normalize other GHGs to CO₂e, they are emitted in far fewer quantities. URBEMIS does not calculate other GHG emissions associated with

off-site waste disposal, wastewater treatment, emissions associated with goods and services consumed by the residents and workers supported by a project. Nor does URBEMIS calculate GHGs associated with consumption of energy produced off-site. (For that matter, URBEMIS does not report criteria air pollutant emissions from these sources either).

Importantly, URBEMIS does not fully account for interaction between land uses in its estimation of mobile source operational emissions. Vehicle trip rates are defaults derived from the Institute of Transportation Engineers trip generation manuals. The trip rates are widely used and are generally considered worst-case or conservative. URBEMIS does not reflect “internalization” of trips between land uses, or in other words, the concept that a residential trip and a commercial trip are quite possibly the same trip, and, thus, URBEMIS counts the trips separately. There are some internal correction settings that the modeler can select in URBEMIS to correct for “double counting”; however, a project-specific “double-counting correction” is often not available. URBEMIS does allow the user to overwrite the default trip rates and characteristics with more project-specific data from a traffic study prepared for a project.

Residential, Commercial, Mixed-Use Type Projects/ Specific Plans

Direct Emissions

URBEMIS can be used to conduct a project-specific model run and obtain CO₂e emissions for area and mobile sources from the project, and convert to metric tons CO₂e. When a project-specific traffic study is not available, the user should consult with their local air district for guidance. Many air district staff are experienced practitioners of URBEMIS and can advise the lead agency or the modeler on how to best tailor URBEMIS default input parameters to conduct a project-specific model run. When a traffic study has been prepared for the project, the user must overwrite default trip length and trip rates in URBEMIS to match the total number of trips and vehicle miles traveled (VMT) contained in the traffic study to successfully conduct a project-specific model run. URBEMIS is recommended as a calculation tool to combine the transportation study (if available) and EMFAC emission factors for mobile-sources. Use of a project-specific traffic study gets around the main shortfall of URBEMIS: the lack of trip internalization. URBEMIS also provides the added feature of quantifying direct area-source GHG emissions.

Important steps for running URBEMIS

1. Without a traffic study prepared for the project, the user should consult with the local air district for direction on which default options should be used in the modeling exercise. Some air districts have recommendations in the CEQA guidelines.
2. If a traffic study was prepared specifically for the project, the following information must be provided:

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- a. Total number of average daily vehicle trips *or* trip-generation rates by land use type per number of units; and,
 - b. Average VMT per residential *and* nonresidential trip.
 - c. The user overwrites the “Trip Rate (per day)” fields for each land use in URBEMIS such that the resultant “Total Trips” and the “Total VMT” match the number of total trips and total VMT contained in the traffic study.
 - d. Overwrite “Trip Length” fields for residential and nonresidential trips in URBEMIS with the project-specific lengths obtained from the traffic study.
3. Calculate results and obtain the CO₂ emissions from the URBEMIS output file (units of tons per year [TPY]).

Indirect Emissions

URBEMIS does estimate indirect emissions from landscape maintenance equipment, hot water heaters, etc. URBEMIS does not however, provide modeled emissions from indirect sources of emissions, such as those emissions that would occur off-site at utility providers associated with the project’s energy demands. The California Climate Action Registry (CCAR) Protocol v.2.2 includes methodology, which could be used to quantify and disclose a project’s increase in indirect GHG emissions from energy use. Some assumptions must be made for electrical demand per household or per square foot of commercial space, and would vary based on size, orientation, and various attributes of a given structure. An average rate of electrical consumption for residential uses is 7,000 kilowatt hours per year per household and 16,750 kilowatt hours per thousand square feet of commercial floor space. Commercial floor space includes offices, retail uses, warehouses, and schools. These values have been increasing steadily over the last 20 years. Energy consumption from residential uses has increased due to factors such as construction and occupation of larger homes, prices of electricity and natural gas, and increased personal income allowing residents to purchase more electronic appliances. Commercial energy consumption is linked to factors such as vacancy rates, population, and sales.

The modeler will look up the estimated energy consumption for the project’s proposed land uses under year of project buildout, or use the values given in the previous paragraph for a general estimate. The CCAR Protocol contains emission factors for CO₂, CH₄, and nitrous oxide. The “CALI” region grid serves most of the State of California. If a user has information about a specific utility provider’s contribution from renewable sources, the protocol contains methodology to reflect that, rather than relying on the statewide average grid. The incremental increase in energy production associated with project operation should be accounted for in the project’s total GHG emissions for inclusion in the environmental document.

The incremental increase in energy production associated with project operation should be accounted for in the project’s total GHG emissions, but it should be noted that these emissions would be closely controlled by stationary-source control-based regulations and additional regulations are expected under AB 32. However, in the interest of disclosing project-generated GHG emissions and mitigating to the extent feasible, the indirect emissions from off-site electricity generation can be easily calculated for inclusion in the environmental document.

Example Project Estimates for GHG Emissions

Residential Project

Project Attributes:

- 68 detached dwelling units
- 15.9 acres
- 179 residents
- 0 jobs
- Located in unincorporated Placer County (PCAPCD jurisdiction)
- Analysis year 2009

As shown in Table 6, the project’s direct GHG emissions per service population (SP) would be approximately 8 metric tons CO₂e/SP/year.

Table 6: Residential Project Example GHG Emissions Estimates

URBEMIS Output (Project Specific)	Metric Tons/Year CO₂e	Demographic Data	
Area-source emissions	251	Residents	179
Mobile-source emissions	1,044	Jobs	0
Indirect emissions (from CCAR Protocol)	174		
Total operational emissions	1,469	Service population	179
Operational emissions/SP	8.2		
Notes: CO ₂ e = carbon dioxide equivalent; CCAR = California Climate Action Registry; SP = service population(see definition of service population below in discussion of Normalization/Service Population Metric).			
Sources: EDAW 2007, ARB 2007b, CCAR 2007, CEC 2000			

Commercial Project

Project Attributes:

- Free Standing Discount Superstore: 241 thousand square feet (ksf)
- 0 residents

- 400 jobs
- Located in the San Joaquin Valley Air Pollution Control District’s (SJVAPCD) jurisdiction
- Analysis year 2009

Table 7: Commercial Project Example GHG Emissions Estimates

URBEMIS Output (Project Specific)	Metric Tons/Year CO ₂ e	Demographic Data	
Area-source emissions	464	Residents	0
Mobile-source emissions	13,889	Jobs	400
Indirect emissions (from CCAR Protocol)	1,477		
Total operational emissions	15,830	Service population	400
Operational emissions/SP	39.6		
Notes: CO ₂ e = carbon dioxide equivalent; CCAR = California Climate Action Registry; SP = service population (see definition of service population below in discussion of Normalization/Service Population Metric).			
Sources: EDAW 2007, ARB 2007b, CCAR 2007, CEC 2000			

Specific Plan

If used traditionally with default trip rates and lengths, rather than project-specific (Traffic Analysis Zone-specific) trip rates and lengths, URBEMIS does not work well for specific plan or general plan-sized projects with multiple land use types proposed. However, in all instances, projects of these sizes (several hundred or thousand acres) would be accompanied by a traffic study. Thus, for large planning-level projects, URBEMIS can be used as a calculation tool to easily obtain project-specific mobile-source emissions. The user should follow the steps discussed above; wherein he/she overwrites the default ITE trip rates for each land use type with that needed to make total VMT match that contained in the traffic study. The URBEMIS interface is a simple calculator to combine the traffic study and EMFAC emissions factors for mobile-source CO₂.

Project Attributes:

- 985 acres
- Total dwelling units: 5,634
- Commercial/Mixed Use: 429 ksf
- Educational: 2,565 ksf
- 14,648 residents
- 3,743 jobs
- Located in Sacramento County (SMAQMD jurisdiction)
- Analysis year 2009

Table 8: Specific Plan Example GHG Emissions Estimates

URBEMIS Output (Project Specific)	Metric Tons/Year CO ₂ e	Demographic Data	
Area-source emissions	23,273	Residents	14,648
Mobile-source emissions	73,691	Jobs	3,743
Indirect emissions (from CCAR Protocol)	32,744		
Total operational emissions	129,708	Service population	18,391
Operational emissions/SP	7.1		
Notes: CO ₂ e = carbon dioxide equivalent; CCAR = California Climate Action Registry; SP = service population (see definition of service population below in discussion of Normalization/Service Population Metric).			
Sources: EDAW 2007, ARB 2007b, CCAR 2007, CEC 2000			

The specific plan example, when compared to the residential or commercial examples, illustrates the benefit of a mixed-use development when you look at CO₂e emissions per resident or job (service population) metric (see definition of service population below in discussion of Normalization/Service Population Metric). Though this particular specific plan is not an example of a true jobs/housing balance, the trend is clear: accommodating residents and jobs in a project is more efficient than residents or jobs alone.

Stationary- and Area-Source Project Types

GHG emissions from stationary or area sources that require a permit to operate from the air district also contain both direct and indirect sources of emissions. Examples of these types of sources would be fossil fuel power plants, cement plants, landfills, wastewater treatment plants, gas stations, dry cleaners and industrial boilers. All air districts have established procedures and methodologies for projects subject to air district permits to calculate their regulated pollutants. It is anticipated that these same procedures and methodologies could be extended to estimate a permitted facility's GHG calculations. For stationary and area sources that do not require air district permits, the same methodologies used for permitted sources could be used in addition to URBEMIS and CCAR GRP to calculate GHG emissions from these facilities.

Wastewater Treatment Facilities

Direct GHG emissions associated with a proposed waste water treatment plant can be calculated using AP-42 emission factors from Chapter 4.3.5 Evaporative Loss Sources: Waste Water-Greenhouse Gases and the CCAR methodology. In general, most wastewater operations recover CH₄ for energy, or use a flare to convert the CH₄ to CO₂. There are many types of wastewater treatment processes and the potential for GHG emissions from different types of plants varies substantially. There is not one standard set of emission factors that could be used to quantify GHG emissions for a state

“average” treatment plant. Thus, research will need to be conducted on a case-by-case basis to determine the “Fraction Anaerobically Digested” which is a function of the type of treatment process. Indirect emissions from these facilities can be calculated using the CCAR energy use protocols and URBEMIS model for transportation emissions.

Solid Waste Disposal Facilities

Air districts will have emission estimate methodologies established for methane emissions at permitted landfills. In addition, EPA’s Landfill Gas Emissions Model (LandGem) and the CCAR methodology could also be used to quantify GHG emissions from landfill off gassing; however, this model requires substantial detail be input. The model uses a decomposition rate equation, where the rate of decay is dependent on the quantity of waste in place and the rate of change over time. This modeling tool is free to the public, but substantial project detail about the operation of the landfill is needed to run the model. Indirect emissions from these facilities can be calculated using the CCAR energy use protocols and URBEMIS model for transportation emissions.

Construction Emissions

GHG emissions would occur during project construction, over a finite time. In addition, a project could result in the loss of GHG sequestration opportunity due primarily to the vegetation removed for construction. URBEMIS should be used to quantify the mass of CO₂ that would occur during the construction of a project for land development projects. Some construction projects would occur over an extended period (up to 20–30 years on a planning horizon for general plan buildout, or 5–10 years to construct a dam, for example). OFFROAD emission factors are contained in URBEMIS for CO₂ emissions from construction equipment. For other types of construction projects, such as roadway construction projects or levee improvement projects, SMAQMD’s spreadsheet modeling tool, the Road Construction Emissions Model (RoadMod), should be used. This tool is currently being updated to include CO₂ emissions factors from OFFROAD.

The full life-cycle of GHG emissions from construction activities is not accounted for in the modeling tools available, and the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level. The emissions disclosed will be from construction equipment and worker commutes during the duration of construction activities. Thus, the mass emissions in units of metric tons CO₂e/year should be reported in the environmental document as new emissions.

General Plans

In the short-term, URBEMIS can be used as a calculation tool to model GHG emissions from proposed general plans, but only if data from the traffic study is incorporated into model input. The same methodology applied above in the specific plan example applies to general plans. The CCAR GRP can be used to approximate indirect emissions from

increased energy consumption associated with the proposed plan area. The same models and methodologies discussed previously for wastewater, water supply and solid waste would be used to estimate indirect emissions resulting from buildout of the general plan.

In the longer-term, more complex modeling tools are needed, which would integrate GHG emission sources from land use interaction, such as I-PLACE³S or CTG Energetics' Sustainable Communities Custom Model attempt to do. These models are not currently available to the public and only have applicability in certain areas of the state. It is important that a tool with statewide applicability be used to allow for consistency in project treatment, consideration, and approval under CEQA.

Scenarios

At the general plan level, the baseline used for analyzing most environmental impacts of a general plan update is typically no different from the baseline for other projects. The baseline for most impacts represents the existing conditions, normally on the date the Notice of Preparation is released. Several comparative scenarios could be relevant, depending on the exact methodological approach and significance criteria used for GHG assessment:

- Existing Conditions. The GHG emissions associated with the existing, on-the-ground conditions within the planning area.
- 1990 conditions. The GHG emissions associated with the general plan area in 1990. This is relevant due to the state's AB 32 GHG emission reduction goals' benchmark year of 1990. The GHG-efficiency of 1990 development patterns could be compared to that of the general plan buildout.
- Buildout of the Existing General Plan. The GHG emissions associated with buildout of the existing general plan (without the subject update). This is the no project alternative for the purposes of general plan CEQA analysis.
- Buildout of the Updated General Plan. The GHG emissions associated with buildout of the general plan, as proposed as a part of the subject update. This would include analysis of any changes included as a part of the general plan update for the existing developed portions of the planning area. Many communities include redevelopment and revitalization strategies as a part of the general plan update. The general plan EIR can include assumptions regarding what level and type of land use change could be facilitated by infill and redevelopment. Many jurisdictions wish to provide future projects consistent with these land use change assumptions with some environmental review streamlining. In addition, many communities include transit expansions, pedestrian/bicycle pathway improvements, multi-modal facility construction, travel demand policies, energy efficiency policies, or other measures that could apply to the existing developed area, just as they may apply to any new growth

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areas. Such policies could affect the overall GHG emissions of the built out general plan area.

- Increment between Buildout of Updated General Plan and Existing General Plan Area. There are many important considerations associated with the characterization of the impact of the General Plan update. The actual GHG emissions impact could be described as the difference between buildout under the existing and proposed land use plan (No-Build Alternative). However, the courts have held that an EIR should also analyze the difference between the proposed General Plan and the existing environment (*Environmental Planning & Information Council v. County of El Dorado* (EPIC) (1982) 131 Cal.App.3d 350). At the General Plan level, over the course of buildout, some new land uses are introduced, which could potentially add operational GHG emissions and potentially remove existing sequestration potential. Some properties become vacant and are not redeveloped. Other properties become vacant and then are redeveloped. Communities cannot pretend to understand fully in advance each component of land use change. The programmatic document is the preferred method of environmental analysis. Through this programmatic framework, communities develop buildout assumptions as a part of the General Plan that are normally used as a basis of environmental analysis. For certain aspects of the impact analysis, it becomes important not just to understand how much “new stuff” could be accommodated under the updated General Plan, but also the altered interactions between both “new” and “existing” land uses within the planning area. As addressed elsewhere, there are tools available for use in understanding land use/transportation interactions at the General Plan level. Without the GHG targets established by AB 32, a simple mass comparison of existing conditions to General Plan buildout might be appropriate.

However, within the current legal context, the GHG efficiency of the updated General Plan becomes the focus of analysis. Some options in this regard include:

- Estimate the GHG emissions associated with all the land uses included within the planning area upon buildout of the General Plan using no project specific information (regional, countywide, or statewide defaults). Estimate GHG emissions using project specific information from the transportation engineer, transportation demand policies, community design elements, energy efficiency requirements, wastewater treatment and other public infrastructure design changes, and other components. Compare these two calculations. Is the second calculation reduced by the percent needed to meet AB 32 goals compared to the first calculation?
- Estimate the GHG emissions associated with the 1990 planning area and the per-capita or per-service population GHG associated with the 1990 planning area. (Many communities are establishing GHG inventories using different tools). Estimate the GHG emissions associated with buildout of the proposed General Plan update and the resulting per-capita or per-service population GHG

emissions. Compare the two calculations. Is the General Plan buildout per-capita or per-service population level greater than the 1990 estimate?

Example General Plan Update: Proposed new growth area

Project Attributes:

- 10,050 single family dwelling units
- 652 multi-family dwelling units
- 136 acres parks
- 2,047 ksf commercial (regional shopping center)
- 2,113 ksf office
- 383 acres industrial park
- 31,293 new residents
- 4,945 new jobs
- Located in Stanislaus County (SJVAPCD jurisdiction)
- Analysis year 2025

Table 9: General Plan Example GHG Emissions Estimates

URBEMIS Output (Project Specific)	Metric CO ₂ e	Tons/Year	Demographic Data
Construction emissions	12,083*		Residents 31,293
Area-source emissions	45,708		
Mobile-source emissions	263,954		Jobs 4,945
Indirect emissions (from CCAR Protocol)	78,385		
Total operational emissions	388,046		Service population 36,238
Operational emissions/SP	10.7		

* Approximately 241,656 metric tons CO₂e total at general plan buildout (assumes 20-year buildout period). Construction emissions were not included in total operational emissions.
Notes:
CO₂e = carbon dioxide equivalent; CCAR = California Climate Action Registry; SP = service population (see definition of service population below in discussion of Normalization/Service Population Metric).
Sources: EDAW 2007, ARB 2007b, CCAR 2007, CEC 2000

Due to the programmatic level of analysis that often occurs at the general plan level, and potential for many relevant GHG emission quantities, it could be preferable to use a qualitative approach. Such an analysis could address the presence of GHG-reducing policy language in the general plan.

Three possible tiers of approaches to addressing GHG mitigation strategies, either as general plan policy, general plan EIR mitigation measures, or both, include:

- Forward planning
- Project toolbox
- Defer to GHG reductions plan

The three basic approaches are described below.

1. Bring reduction strategies into the plan itself. The most effective way for local jurisdictions to achieve GHG emissions reductions in the medium- and long-term is through land use and transportation policies that are built directly into the community planning document. This involves creating land use diagrams and circulation diagrams, along with corresponding descriptive standards, that enable and encourage alternatives to travel and goods movement via cars and trucks. The land use and circulation diagrams provide a general framework for a community where people can conduct their everyday business without necessarily using their cars. The overall community layout expressed as a part of the land use and circulation diagrams is accompanied by a policy and regulatory scheme designed to achieve this community layout. Impact fees, public agency spending, regulations, administrative procedures, incentives, and other techniques are designed to facilitate land use change consistent with the communities' overall vision, as expressed in policy and in the land use diagram. There are many widely used design principles that can be depicted in land use and circulation diagrams and implemented according to narrative objectives, standards, and policies:

- Connectivity. A finely-connected transportation network shortens trip lengths and creates the framework for a community where homes and destinations can be placed close in proximity and along direct routes. A hierarchical or circuitous transportation network can increase trip lengths and create obstacles for walking, bicycling, and transit access. This policy language would likely be found in the Circulation Element.
- Compactness. Compact development, by its nature, can increase the efficiency of infrastructure provision and enable travel modes other than the car. If communities can place the same level of activity in a smaller space, GHG emissions would be reduced concurrently with VMT and avoid unnecessary conversion of open space. This policy language would likely be found in the Land Use Element.
- Diversity. Multiple land use types mixed in proximity around central “nodes” of higher-activity land uses can accommodate travel through means other than a car. The character and overall design of this land use mix is, of course, different from community to community. This policy language would likely be found in the Land Use Element.
- Facilities. Pedestrian, bicycle, and public transportation improvements, planning, and programming are sometimes an afterthought. To get a more GHG-efficient mode share, safe and convenient bike lanes, pedestrian pathways, transit shelters, and other facilities are required to be planned along with the vehicular travel network. This policy language would likely be found in the Circulation Element.

- Redevelopment. One way to avoid GHG emissions is to facilitate more efficient and economic use of the lands in already-developed portions of a community. Reinvestment in existing neighborhoods and retrofit of existing buildings is appreciably more GHG efficient than greenfield development, and can even result in a net reduction in GHG emissions. This policy language would likely be found in the Conservation or Land Use Element.
 - Housing and Employment. Most communities assess current and future economic prospects along with long-range land use planning. Part of the objective for many communities is to encourage the coalescence of a labor force with locally available and appropriate job opportunities. This concept is best known as “jobs-housing balance.” This policy language would likely be found in the Housing Element.
 - Planning Level Versus Project Level. For transportation-related GHG emissions that local governments can mitigate through land use entitlement authority, the overall community land use strategy and the overall transportation network are the most fruitful areas of focus. The reduction capacity of project-specific mitigation measures is greatly limited if supportive land use and transportation policies are lacking at the community planning level. The regional economic context, of course, provides an important backdrop for land use and transportation policy to address GHG emissions. Within this context, the general plan is the readily available tool for local governments to establish such land use and transportation strategies. This policy language would likely be found in the Land Use and Circulation Elements.
 - Shipping Mode Shift. Locate shipping-intensive land uses in areas with rail access. Some modes of shipping are more GHG-intensive than others. Rail, for example, requires only about 15 to 25 percent of the energy used by trucks to ship freight equivalent distances and involves reduced transportation-related GHG emissions. Cities and counties have little direct control over the method of shipment that any business may choose. Nevertheless, as a part of the general planning process, cities and counties can address constraints on the use of rail for transporting goods. This policy language would likely be found in the Land Use and Circulation Elements.
2. Provide a “toolbox” of strategies after the project site has been selected. In addition to the examples of design principles that are built into the community planning process, communities can offer project applicants a range of tools to reduce GHG emissions. Mitigation strategies are elaborated in detail in Chapter 9.
 3. Defer to General Plan implementation measure. Develop and implement a GHG Emissions Reduction Plan. Another option for local governments would be development of an implementation measure as a part of the general plan that outlines an enforceable GHG reduction program. Perhaps the most well known example of this approach is the result of California’s Attorney General settlement of the lawsuit brought against San

Bernardino County. The County has agreed to create a 1990 GHG inventory and develop measures to reduce such emissions according to the state's overall goals. Other communities have pursued similar programs (i.e., the City of San Diego, Marin County). Along with the inventories, targets, and example reduction measures, these programs would include quantitative standards for new development; targets for reductions from retrofitting existing development; targets for government operations; fee and spending program for GHG reduction programs; monitoring and reporting; and other elements. The local government itself should serve as a model for GHG reduction plan implementation, by inventorying emissions from government operations and achieving emission reductions in accordance with the plan's standards. An optional climate change element could be added to contain goals, policies, and this implementation strategy, or this could belong in an optional air quality element.

Other Project Types

Air District Rules, Regulations and Air Quality Plans

Air district air quality plans, rules and regulations could have the potential to increase or decrease GHG emissions within their respective jurisdiction. In general, air district air quality plans, rules and regulations act to reduce ozone precursors, criteria air pollutant and toxic air contaminant emissions, which would almost always act to reduce GHG emissions simultaneously. However, this may not always be the case.

Air Quality Plans

Air districts will have to include GHG emissions analysis as part of their criteria air pollutant and toxic air contaminant air pollutant analysis when considering the adoption of air quality plans and their subsequent rules and regulations needed to implement the plans. Multiple models and methodologies will be needed to accomplish this analysis.

Regional Transportation Plans

Regional transportation plans would also need to be evaluated on a case-by-case basis to determine if a net increase or decrease in GHG emissions would occur. Complex interactions between the roadway network, operating conditions, alternative transportation availability (such as public transit, bicycle pathways, and pedestrian infrastructure), and many other independent parameters specific to a region should be considered. Regional transportation models exist to estimate vehicular emissions associated with regional transportation plans, which includes the ability to estimate GHG emissions.

Normalization/Service Population Metric

The above methodology would provide an estimate of the mass GHG emissions generated by a proposed project, which could be compared to a mass emission threshold. EDAW developed a methodology that would measure a project's overall GHG efficiency

in order to determine if a project is more efficient than the existing statewide average for per capita GHG emissions. The following steps could be employed to estimate the GHG-“efficiency,” which may be more directly correlated to the project’s ability to help obtain objectives outlined in AB 32, although it relies on establishment of an efficiency-based significance threshold. The subcommittee believes this methodology may eventually be appropriate to evaluate the long-term GHG emissions from a project in the context of meeting AB 32 goals. However, this methodology will need substantially more work and is not considered viable for the interim guidance presented in this white paper.

- Divide the total operational GHG emissions by the Service Population (SP) supported by the project (where SP is defined as the sum of the number of residents and the number of jobs supported by the project). This value should be compared to that of the projected statewide GHG emissions inventory from the applicable end-use sectors (electricity generation, residential, commercial/institutional, and mobile-source) in 1990 divided by the projected statewide SP for the year 2020 (i.e., AB 32 requirements), to determine if the project would conflict with legislative goals.
 - If the project’s operational GHG/SP falls below AB 32 requirements, then the project’s GHG emissions are less than cumulatively considerable.
 - If the project’s operational GHG/SP exceed AB 32 requirements (a substantial contribution), then the project’s GHG emissions would conflict with legislative requirements, and the impact would be cumulatively considerable and mitigation would be required where feasible.
- New stationary and area sources/facilities: calculate GHG emissions using the CCAR GRP. All GHG emissions associated with new stationary or area sources should be treated as a net increase in emissions, and if deemed significant, should be mitigated where feasible.
- Road or levee construction projects or other construction-only projects: calculate GHG emissions using the RoadMod, which will be updated to contain GHG emission factors from EMFAC and OFFROAD. All construction-generated GHG emissions should be treated as a net increase, and if deemed significant, should be mitigated to the extent feasible.
- Air District rulemaking or air quality management plan-type projects should be evaluated on a case-by-case basis for secondary impacts of increased GHG emissions generation. In most cases, the types of projects that act to reduce regional air pollution simultaneously act to reduce GHG emissions, and would be beneficial, but should be evaluated for secondary effects from GHG emissions.
- Regional transportation plans should also be evaluated on a case-by-case basis for potential to either reduce or increase GHG emissions from the transportation sector. EMFAC can be utilized to determine the net change in GHG emissions

associated with projected vehicle VMT and from operating speed changes associated with additional or alleviated congestion.

To achieve the goals of AB 32, which are tied to GHG emission rates of specific benchmark years (i.e., 1990), California would have to achieve a lower rate of emissions per unit of population and per unit of economic activity than it has now. Further, in order to accommodate future population and economic growth, the state would have to achieve an even lower rate of emissions per unit than was generated in 1990. (The goal to achieve 1990 quantities of GHG emissions by 2020 means that this will need to be accomplished in light of 30 years of population and economic growth in place beyond 1990.) Thus, future planning efforts that would not encourage new development to achieve its fair share of reductions in GHG emissions would conflict with the spirit of the policy decisions contained in AB 32, thus impeding California's ability to comply with the mandate.

Thus, if a statewide context for GHG emissions were pursued, any net increase in GHG emissions within state boundaries would be considered "new" emissions. For example, a land development project, such as a specific plan, does not necessarily create "new" emitters of GHG, but would theoretically accommodate a greater number of residents in the state. Some of the residents that move to the project could already be California residents, while some may be from out of state (or would 'take the place' of in-state residents who 'vacate' their current residences to move to the new project). Some may also be associated with new births over deaths (net population growth) in the state. The out-of-state residents would be contributing new emissions in a statewide context, but would not necessarily be generating new emissions in a global context. Given the California context established by AB 32, the project would need to accommodate an increase in population in a manner that would not inhibit the state's ability to achieve the goals of lower total mass of emissions.

The average net influx of new residents to California is approximately 1.4 percent per year (this value represents the net increase in population, including the net contribution from births and deaths). With population growth, California also anticipates economic growth. Average statewide employment has grown by approximately 1.1 percent over the last 15 years. The average percentage of population employed over the last 15 years is 46 percent. Population is expected to continue growing at a projected rate of approximately 1.5 percent per year through 2050. Long-range employment projection data is not available from the California Department of Finance (DOF) and can be extrapolated in different ways (e.g., linear extrapolation by percentage rate of change, percentage of population employed, mathematical series expansion, more complex extrapolation based on further research of demographic projections such as age distribution). Further study would be needed to refine accurate employment projections from the present to 2050. For developing this framework, employment is assumed to have a constant proportionate relationship with the state's population. The projected number of jobs is assumed to be roughly 46 percent of the projected population.

In light of the statewide context established by California law, consistency is most important for evaluating GHG emissions from projects. Thus, URBEMIS and the CCAR GRP are the recommended tools for quantification of GHG emissions from most project types in the short term. Over the long term, more sophisticated models that integrate the relationship between GHG emissions and land use, transportation, energy, water, waste, and other resources, and have similar application statewide would have better application to the problem, but may not currently be as accessible or as easily operable. I-PLACE³S and CTG Energetics' Sustainable Communities Model (SCM) are two examples of such models that contain emission factors for GHGs, which could be refined to have applicability statewide and made available to CEQA practitioners. Other models are likely to be developed, given the importance of this issue.

Short-Term and Long-Term Methodologies

The following tools can be used to quantify a project's GHG emissions until tools that are more comprehensive become available statewide:

1. Land development projects: URBEMIS 2007 v. 9.2 and the CCAR GRP v. 2.2 (short-term); further development of I-PLACE³S or CTG's Sustainable Communities Model (long-term).
2. New stationary and area sources/facilities: AP-42 Chapter 4.3, LandGem v. 3.02, and/or CCAR GRP v. 2.2.
3. Road or levee construction projects or other construction-only projects: RoadMod/OFFROAD 2007.

Ideally, I-PLACE³S or CTG's Sustainable Communities Model would be expanded to apply to all regions of the state. These types of models use an integrated approach, which is the best approach for reasonably approximating the emissions that result from interaction between land uses, but neither is available to the public and would create consistency problems in reporting emissions from projects across the state if these were used today. However, a similar model with statewide applicability will likely be developed due to the importance of the issue. Table 10 Summary of Modeling Tools for Estimating GHG Emissions and Project Applicability

Table 10: Summary of Modeling Tools for GHG Emissions

Method/Tool Description	Availability	Applicability	Scope	Ease of Use	Data Input (Requirements and Guidance)	Data Output	Recommendation Comments	Advantages/ Disadvantages
URBEMIS 2007	Public domain -Download (www.urbemis.com) free of charge	Land development and construction projects (construction, mobile- and area-source emissions)	Local	Fairly Easy	Land use information, construction and operational data and assumptions (e.g., jurisdiction, acres of land use type, year of operation, etc.)	Mobile-source Construction & Operational CO ₂ (lb/day or tons/year)	-Recommended for land development and construction projects -Also recommended for net change in land use (zoning changes)	-Does not quantify indirect emissions from energy consumption or other GHGs (except methane from mobile-sources) -Free, available to public, and applicable statewide -Widely used for assessment of other air quality impacts
California Climate Action Registry General Reporting Protocol v. 2.2	Public guidance document	Indirect emissions from land development projects, stationary-area-source facilities regulated under AB 32	State	Easy	Energy consumption	CO ₂ e (Metric tons/year)	-Recommended for indirect emissions from energy consumption for land development projects, and for new stationary- or area-sources to be regulated	-Contains emission factors for CH ₄ and N ₂ O in addition to CO ₂ -Does not contain emission factors broken down by utility provider (statewide average grid sources to be only)
Clean Air and Climate Projection (CACP) Software	Public agencies (members of ICLEI, NACAA, or similar)	Local governments used for emissions inventories	Local	N/A	Energy usage, waste generation/disposal transportation	CO ₂ e (tons/year)	-Recommended for inventories of local government entities activities (must be a member of affiliated agency or group)	-Not available to public
CTG Sustainable Communities Model	Custom model	Land development	Regional, scalable	N/A	Land use information, operational (mobile, economic, infrastructure) assumptions	energy, CO ₂ e (tons/year)	-An integrated and comprehensive modeling tool, but cannot obtain	-Not available to public

Method/Tool Description	Availability	Applicability	Scope	Ease of Use	Data Input (Requirements and Guidance)	Data Output	Recommendation Comments	Advantages/ Disadvantages
I-PLACE ³ S	Access fee through local COG Only available for eight California counties	Land use change	Regional, scalable	Fairly Easy	Parcel information	CO ₂ (lb/day or tons/year)	-Recommended for land development projects and land use changes -Especially good for general plans	-Not freely available to public -Not applicable statewide -Actually provides insight into land use interaction -Can include very specific project attributes -Trip rates are from behavioral survey data, instead of ITE
EMFAC 2007	Public domain	On-road mobile-sources	Statewide, regional	Fairly Easy	Vehicle information	fleet CO ₂ (grams/mile)	-Not recommended for most projects (URBEMIS preferred) -Could be used for certain Air District Rulemaking applications	-Can compare emissions based on speed-distribution -Emission factors contained in URBEMIS -Not a stand-alone model
OFFROAD 2007	Public domain	Off-road mobile sources (construction equipment)	Statewide, regional	Fairly Easy	Construction information	fleet CO ₂ (lb/day)	-Not recommended (URBEMIS preferred) -could be used for certain Air District Rulemaking applications (re: construction equipment)	-Emission factors contained in URBEMIS
RoadMod (to be updated to include CO ₂)	Public domain	Off-road and on-road mobile sources (construction equipment and material haul trucks)	Statewide	Easy	Construction information	CO ₂ (lb/day or tons/project)	-Recommended for construction-only projects (linear in nature; i.e., levees, roads, pipelines)	-To be updated to support emissions factors from OFFROAD 2007

Method/Tool Description	Availability	Applicability	Scope	Ease of Use	Data Input (Requirements and Guidance)	Data Output	Recommendation Comments	Advantages/ Disadvantages
DTIM	Public domain	On-road mobile-sources	Statewide, regional	Difficult (consists of a series of three programs and requires input files from traffic and emissions modeling)	-EMFAC files -Traffic model output files (e.g., link, interzonal, and trip end data) -User options file -Optional files	CO ₂ (tons/year)	-Not recommended	-Not updated to support EMFAC 2007 emission factors -Input files include output files from regional transportation models which more accurately reflect VMT
Southeast Climate Change Partnership Spreadsheet Model (UK)	Public domain http://www.climate-southeast.org.uk/	UK government/agencies/organizations used for emissions inventories	Local, county, regional	Fairly easy	Energy usage, waste generation/disposal, transportation	CO ₂ (tonnes/year)	-Not recommended for use in California, but could be a valuable source for building an applicable spreadsheet model	-Applicability for UK, but could be updated with CA-specific emission factors
EPA AP-42; Evaporation Loss Sources Chapter 4.3.5	Public reference document	GHG emissions from waste water treatment facilities	Facility level	Easy equation; substantial research needed to use	Biochemical oxygen demand (BOD) loading, anaerobically digested	Fraction CH ₄ (lb/year)	-Recommended for Publicly owned treatment works (POTW) projects	-Substantial research needed to determine the "fraction anaerobically digested" parameter, which is dependent on the type of treatment plant/process
LandGem v. 3.02	Public domain http://www.epa.gov/ttn/catc/dir1/landgem-v302.xls	GHG emissions from anaerobic decomposition associated with landfills	Facility Level	Moderate	Solid waste processing, year of analysis, lifetime of waste in place	CO ₂ , CH ₄ (Mega grams/year)	-Recommended for landfill emissions	-Emission rates change dependent on years of decomposition, waste in place rates of change. -Complex decomposition rate equation, but good first approximation

Method/Tool Description	Availability	Applicability	Scope	Ease of Use	Data Input (Requirements and Guidance)	Data Output	Recommendation Comments	Advantages/ Disadvantages
CARROT	Registry members	Stationary source emissions, vehicle fleet sources	Facility level	Moderate	Facility-specific information	All GHGs	-Recommended for reporting facilities under AB 32 and for indirect emissions from energy consumption (CCAR Protocol)	-Estimates all GHGs and normalizes to CO ₂ e -Not publicly available
<p>Notes: GHG = greenhouse gas; AB = assembly bill; CO₂e = carbon dioxide equivalent; CH₄ = methane; N₂O = nitrous oxide; COG = council of governments ; ITE = Institute of Transportation Engineers; CCAR = California Climate Action Registry Source: Data compiled by EDAW and the California Air Pollution Control Officers Association in 2007</p>								

Chapter 9: Mitigation Strategies for GHG

Chapter 9

Mitigation Strategies for GHG

Introduction

This chapter (and Appendix B) identifies existing and potential mitigation measures that could be applied to projects during the CEQA process to reduce a project's GHG emissions that would be identified using the analytical methodologies included in this white paper. The Subcommittee retained the services of EDAW to assist with this effort. EDAW performed a global search of mitigation measures currently in practice and under study that would reduce GHG emissions.

Table 16 (Appendix B) provides a brief description of each measure along with an assessment of their feasibility (from a standpoint of economical, technological, and logistical feasibility, and emission reduction effectiveness), and identifies their potential for secondary impacts to air quality. During the global search performed, EDAW also took note of GHG reduction strategies being implemented as rules and regulation (e.g., early action items under AB 32), which are summarized in Table 18 (Appendix C). It is important to note that though compliance with such would be required by regulation for some sources, such strategies may be applicable to other project and source types.

The recurring theme that echoes throughout a majority of these measures is the shift toward New Urbanism, and research has consistently shown that implementation of Neotraditional Development techniques reduces VMT and associated emissions. The material reviewed assessed reductions from transportation-related measures (e.g., bicycle, pedestrian, transit, and parking) as a single comprehensive approach to land use. This comprehensive approach focuses on development design criteria conducive to enhancing alternate modes of transportation, including transit, walking, and bicycling. Transportation Demand Management (TDM) programs are viewed as a mechanism to implement specific measures. TDM responsibilities may include offering incentives to potential users of alternative modes of transportation and monitoring and reporting mode split changes.

The comprehensive approach makes it more difficult to assess reductions attributable to each measure. Nevertheless, there is a strong interrelationship between many of the measures, which justifies a combined approach. Consider the relationship between bike parking nonresidential, bike parking residential, endtrip facilities, and proximity to bike path/bike lane measures. In reality, these measures combined act as incentives for one individual to bike to work, while implementation of a single measure without the others reduces effectiveness.

The global nature of GHG emissions is an important feature that enables unique mitigation: abatement. When designing a project subject to CEQA, the preferred practice is first to avoid, then to minimize, and finally to compensate for impacts. Where the impact cannot be mitigated on-site, off-site mitigation is often and effectively implemented in several resource areas, either in the form of offsetting the same impact or preserving the resource elsewhere in the region. Frequently, mitigation fee programs or funds are established, where the proponent pays into the program and fees collected

throughout the region or state are used to implement projects that, in turn, proportionately offset the impacts of the projects to the given resource. It may be more cost-effective to reduce as much GHG on-site as feasible (economically and technologically). Then the proponent would pay into a “GHG retrofit fund” to reduce equivalent GHG emissions off-site. In contrast to regional air pollutant offset programs such as the Carl Moyer Program, it matters greatly where reductions of ozone precursors occur, as ozone affects regional air quality. The GHG retrofit fund could be used to provide incentives to upgrade older buildings and make them more energy efficient. This would reduce demand on the energy sector and reduce stationary source emissions associated with utilities. This program has been successfully implemented in the United Kingdom where developments advertise “carbon neutrality.” Of course, some GHG emissions occur associated with operation of the development, but the development would offset the remainder of emissions through off-site retrofit. Avoiding emissions that would otherwise continue to occur at existing development would be a unique opportunity for mitigation of GHG emissions. Reduction of GHG emissions also may have important side benefits including reduction of other forms of pollution.

Depending on the significance threshold concept adopted, projects subject to the CEQA process would either qualitatively or quantitatively identify the amount of GHG emissions associated with their project using the analytical methodologies identified in the previous chapter. The analysis would then apply the appropriate number of mitigation measures listed in Appendix B to their project to reduce their GHG emissions below the significance level. Calculating the amount of GHG emission reductions attributable to a given mitigation measure would require additional research. The examples below illustrate how a project would be mitigated using this approach.

Residential Project Example

Project Attributes:

- 68 detached dwelling units
- 15.9 acres
- Located in unincorporated Placer County PCAPCD jurisdiction)
- Assume URBEMIS defaults for a rural project in Placer County, in absence of a traffic study (This is contrary to the recommendations contained under Task 1; a traffic study is necessary to assess project-specific GHG emissions).
- Analysis year 2009

Table 11: Residential Project Example GHG Emissions Estimates with Mitigation

URBEMIS Output (Unmitigated)	Metric Tons/Year CO ₂ e	URBEMIS Output (Mitigated)	Metric Tons/Year CO ₂ e	Percent Reduction
Area-source emissions	252	Area-source emissions	215	14.6
Mobile-source emissions	1,047	Mobile-source emissions	916	12.5
Total direct operational emissions (area + mobile)	1,299	Total operational emissions (area + mobile)	1,131	12.9
Notes: CO ₂ e = carbon dioxide equivalent				
Sources: Data compiled by EDAW in 2007				

Using URBEMIS 2007 and assuming the project would implement the mitigation measures listed below, yearly project-generated emissions of CO₂e would be reduced by approximately 13 percent. Implementation of the following mitigation measures is assumed:

- 100 housing units within one-half-mile radius of project’s center, including this project’s 68 residential units;
- provision of 80 jobs in the study area;
- retail uses present with one-half-mile radius of project’s center;
- 10 intersections per square mile;
- 100% of streets with sidewalks on one side;
- 50% of streets with sidewalks on both sides;
- 30% of collectors and arterials with bike lanes, or where suitable, direct parallel routes exist;
- 15% of housing units deed restricted below market rate;
- 20% energy efficiency increase beyond Title 24; and
- 100% of landscape maintenance equipment electrically powered and electrical outlets in front and rear of units.

Example Project Methodology and Mitigation

Table 12 –Residential Projects Example Methodology and Mitigation

Source	Methodology	Mitigation
Direct Emissions		
Construction	URBEMIS (OFFROAD emission factors)	MM C-1→MM C-4
Mobile Sources	URBEMIS (EMFAC emission factors)	MM T-3→MM T-8, MM T-10→MM T-14, MM T-16, MM T-19→MM T-21 MM D-2→MM D-8, MM D-10→MM D-15, MM D-17 MM S-1→MM S-2 MM M-1→MM M-2
Area Sources	URBEMIS	MM D-13→MM D-15, MM D-17
Indirect Emissions		
Energy Consumption	CCAR GRP & CEC	MM E-1→MM E-8, MM E-10, MM E-12→MM E-23 MM S-1→MM S-2 MM M-1→MM M-2

Table 13 –Commercial Projects Example Methodology and Mitigation

Source	Methodology	Mitigation
Direct Emissions		
Construction	URBEMIS (OFFROAD emission factors)	MM C-1→MM C-4
Mobile Sources	URBEMIS (EMFAC emission factors)	MM T-1→MM T-2, MM T-4→MM T-15, MM T-17→MM T-21 MM D-1→MM D-3, MM D-5→MM D-6, MM D-10, MM D-12, MM D-14→MM D-17 MM E-24 MM S-1→MM S-2 MM M-1→MM M-2
Area Sources	URBEMIS	MM D-14→MM D-17
Indirect Emissions		
Energy Consumption	CCAR GRP & CEC	MM E-1, MM E-4→MM E-13, MM E-16→MM E-24 MM S-1→MM S-2 MM M-1→MM M-2

Chapter 9

Mitigation
Strategies for
GHG

Table 14 –Specific Plans Example Methodology and Mitigation

Source	Methodology	Mitigation
Direct Emissions		
Construction	URBEMIS (OFFROAD emission factors)	MM C-1→MM C-4
Mobile Sources	Short-term: URBEMIS (EMFAC emission factors). Long-term: I-PLACE ³ S/CTG SCM	MM T-1→MM T-21 MM D-1→MM D-12, MM D-18→MM D-19 MM E-24 MM S-1→MM S-2 MM M-1→MM M-2
Area Sources	Short-term: URBEMIS (EMFAC emission factors). Long-term: I-PLACE ³ S/CTG SCM	MM D-13→MM D-19 MM E-1→MM E-24 MM S-1→MM S-2
Indirect Emissions		
Energy Consumption	Short-term: CCAR GRP & CEC. Long-term: I-PLACE ³ S/CTG SCM	MM M-1→MM M-2

General Plans

- Include a general plan policy to reduce emissions within planning area to a level consistent with legislative requirements.
- Implementation strategies include preparation of a GHG reduction plan.
- Projects consistent with a general plan could be responsible for complying with such a policy.

Table 15 –General Plans Example Methodology and Mitigation

Source	Methodology	Mitigation
Direct Emissions		
Construction	URBEMIS (OFFROAD emission factors).	MS G-1 MM G-15
Mobile Sources	Short-term: URBEMIS (EMFAC emission factors). Long-term: I-PLACE ³ S/CTG SCM	MS G-1 MS G-2→MS C-7, MS G-9, MS G-12, MS-13→MS-14, MS-16→MS-23
Area Sources	Short-term: URBEMIS (EMFAC emission factors). Long-term: I-PLACE ³ S/CTG SCM	MS G-1 MS G-8→MS C-11, MS G-134, MS G-12, MS-15, MS-17, MS-22
Indirect Emissions		
Energy Consumption	Short-term: CCAR GRP & CEC. Long-term: I-PLACE ³ S/CTG SCM	

Other Project Types

Air District Rules and Regulations

Air district rules and regulations could have the potential to increase or decrease GHG emissions within the respective jurisdiction. In general, air district rules and regulations act to decrease criteria air pollutant or toxic air contaminant emissions, which would usually act to reduce GHG emissions simultaneously. However, this may not always be the case and air district rules and regulations could address emissions from a large variety of different source types. Reductions of GHG emissions associated with implementation of applicable mitigation, which could also vary greatly, would need to be evaluated on a case-by-case basis. However, once applicable mitigation measures are identified, percent reductions based on the best available research to date, such as those specified in Table 15, could be applied to determine mitigated emissions.

Air Quality Plans

Similarly to air district rules and regulations, air quality plans could have the potential to increase or decrease GHG emissions because of criteria air pollutant reduction strategies. In general, strategies implemented by air districts to reduce criteria air pollutants also act to reduce GHG emissions. However, this may not always be the case. Reductions of GHG emissions associated with implementation of applicable mitigation would need to be evaluated on a case-by-case basis. The methodology identified above for determining whether the strategies contained within the GHG reduction plan would adhere to the level specified in general plan policy could also be used to determine the reductions associated with CAP strategies.

Regional Transportation Plans

Regional transportation plans and reductions of GHG emissions associated with implementation of applicable mitigation would also need to be evaluated on a case-by-case basis to determine if a net increase or decrease in GHG emissions would occur. Complex interactions between the roadway network, operating conditions, alternative transportation availability (such as public transit, bicycle pathways, and pedestrian infrastructure), and many other independent parameters specific to a region should be considered. EMFAC 2007 can be used with VMT from the RTP to create an inventory of GHG emissions. Reductions associated with implementation of applicable measures contained in Table 16 could be accomplished by accounting for VMT reductions in the traffic model.

Many states, counties, and cities have developed policies and regulations concerning greenhouse gas emissions that seek to require or promote reductions in GHG emissions through standards for vehicle emissions, fuels, electricity production/renewables, building efficiency, and other means. However, we could only identify three public agencies in the United States that are considering formally requiring the analysis of greenhouse gas emissions and climate change for development projects during their associated environmental processes. There may be others, but they were not identified during research conducted during preparation of this paper.

The following is a summary of those three efforts.

Commonwealth of Massachusetts - MEPA Greenhouse Gas Emissions Policy and Protocol

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) has determined that the phrase “damage to the environment” as used in the Massachusetts Environmental Policy Act (MEPA) includes the emission of greenhouse gases caused by projects subjects to MEPA Review. EEA has published a Greenhouse Gas Emissions Policy (GGEP) to fulfill the statutory obligation to take all feasible measures to avoid, minimize or mitigate damage to the environment.

The GGEP concerns the following projects only:

- The Commonwealth or a state agency is the proponent;
- The Commonwealth or a state agency is providing financial assistance;
- The project is privately funded, but requires an Air Quality Permit from the department of Environmental Protection;
- The project is privately funded, but will generate:
 - 3,000 or more new vehicle trips per day for office projects;
 - 6,000 or more new vehicle trips per day for mixed use projects that are 25% or more office space; or
 - 10,000 or more new vehicle trips per day for other projects.

As a comparison, the trip generation amounts correspond as follows:

- 3,000 vehicle trips per day = approximately 250,000 square foot office development;
- 6,000 or more new vehicle trips per day for mixed use projects that are 25% or more office space = if 25% office space, then equivalent to approximately 130,000 square feet of office and either 100,000 square feet of retail or 450 single-family residential units or some combination thereof.
- 10,000 or more new vehicle trips per day = approximately 1,000 single family residential units or 250,000 square feet retail.

The draft policy states it is not intended to create a numerical GHG emission limit or a numerical GHG emissions reduction target, but rather to ensure that project proponents and reviewers have considered the GHG emissions impacts of their projects and taken all feasible means and measure to reduce those impacts.

The draft policy notes that some projects within these categories will have little or no greenhouse gas emission and the policy will not apply to such projects. EEA intends to identify in the scoping certificate whether a project falls within this *de minimis* exception.

The GGEP requires qualifying projects to do the following:

- to quantify their GHG emissions;
- identify measures to minimize or mitigate such emissions;
- quantify the reduction in emissions and energy savings from mitigation.

Emissions inventories are intended to focus on carbon dioxide, but analysis of other GHGs may be required for certain projects. EEA will require analysis of direct GHG emissions and indirect (electricity and transportation) emissions. The GGEP references the protocols prepared by the World Resource Institute as guidance for inventory preparation.

The policy is still in draft form, but the comment period closed on August 10, 2007.

King County, Washington - Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act (SEPA)

On June 27, 2007, the King County Executive Ron Sims directed all King County Departments, as follows:

“...effective September 1, 2007 to require that climate impacts, including, but not limited to those pertaining to greenhouse gases, be appropriately identified and evaluated when such Departments are acting as the lead agency in reviewing the environmental impacts of private or public proposals pursuant to the State Environmental Policy Act”.

The Executive Order does not define what a “climate impact” is. Based on statements of the County Deputy Chief of Staff*

- County agencies will ask project proponents to supply information on transportation, energy usage and other impacts of proposed projects using the County’s existing SEPA checklist.

* Marten Law Group: Environmental News, August 1, 2007, “King County (WA) First in Nation to Require Climate Change Impacts to be Considered During Environmental Review of New Projects”.

- There is no current plan to require project proponents to take action to mitigate the impacts identifies.
- Development of emissions thresholds and mitigation requirements will be undertaken in connection with the County's upcoming 2008 update of its Comprehensive Plan.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District released an interim guidance on addressing climate change in CEQA documents on September 6, 2007. While very general in nature, the District recommends that CEQA environmental documents include a discussion of anticipated GHG emissions during both the construction and operation phases of the project. This includes assessing the GHG emissions from projects (using readily available models) to determine whether a project may have a significant impact. If so, then the District recommends addressing all of the District's GHG mitigation measures (drawn from comments made by the California Attorney General) – with explanations on how the mitigation will be implemented or providing rationale for why a measure would be considered infeasible. The District provides assistance to agencies in their analysis of GHG emissions and the applicability of specific mitigation measures. The District's guidance can be found at: <http://64.143.64.21/climatechange/ClimateChangeCEQAGuidance.pdf>

Mendocino Air Quality Management District – CEQA Guidelines

The Mendocino AQMD updated its “Guidelines for Use During Preparation of Air Quality Impacts in EIRs or Mitigated Negative Declarations” in May 2007. The guidelines call for preparing estimates of the increased emissions of air contaminations (including GHG) for projects.

The guidelines state that GHG emissions should be presumed to have a significant impact if CO emissions from District-approved modeling exceed either of the following:

- 80% of the level defined as significant for stationary sources in Regulation 1, Rule 130 (s2) of the District (which is 550 lbs/day for CO, meaning a threshold of 440 lbs/day for CO for stationary sources); or
- levels established in District Regulation 1 Rule 130 (i2) for indirect sources (which is 690 lbs/day for CO for indirect sources).

If an average passenger vehicle emits 22 grams of CO/mile and 0.8 lb/mile of CO₂, then the 690-lb/day threshold for CO corresponds to approximately 11,400 lb/day CO₂ threshold for passenger vehicle-related emissions. If one assumes that the average passenger vehicle goes 12,500 miles/year (about 35 miles/day), then this is a threshold equivalent to about 420 vehicles. Using an average in California of about 1.77 vehicles/household, this would correspond to about 250 households/dwelling units.

Appendix A

Relevant Citations

Citations from the Public Resources Code (Division 13, §21000 et seq.) as amended through January 1, 2005.

Public Resources Code – Section 21004, MITIGATING OR AVOIDING A SIGNIFICANT EFFECT; POWERS OF PUBLIC AGENCY:

“In mitigating or avoiding a significant effect of a project on the environment, a public agency may exercise only those express or implied powers provided by law other than this division. However, a public agency may use discretionary powers provided by such other law for the purpose of mitigating or avoiding a significant effect on the environment subject to the express or implied constraints or limitations that may be provided by law.”

Public Resources Code – Section 21082.2, SIGNIFICANT EFFECT ON ENVIRONMENT; DETERMINATION; ENVIRONMENTAL IMPACT REPORT PREPARATION:

- (a) The lead agency shall determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record.
- (b) The existence of public controversy over the environmental effects of a project shall not require preparation of an environmental impact report if there is no substantial evidence in light of the whole record before the lead agency that the project may have a significant effect on the environment.
- (c) Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.
- (d) If there is substantial evidence, in light of the whole record before the lead agency, that a project may have a significant effect on the environment, an environmental impact report shall be prepared.
- (e) Statements in an environmental impact report and comments with respect to an environmental impact report shall not be deemed determinative of whether the project may have a significant effect on the environment.

Citations from the Guidelines for California Environmental Quality Act, CCR, Title 14, Division 6 (§15000 et seq.) as amended through July 27, 2007.

AG=Attorney General; ARB=California Air Resources Board; ASTM=American Society for Testing and Material; BAAQMD=Bay Area Air Quality Management District; BEES= Building for Environmental and Economic Sustainability; CA=California; Caltrans=California Department of Transportation; CAPs=Criteria Air Pollutants; CCAP=Center for Clean Air Policy; CF=Connectivity Factor; CIWMB=California Integrated Waste Management Board; CO= Carbon Monoxide; CO₂=Carbon Dioxide; DGS=Department of General Services; DOE=U.S. Department of Energy; DPF=Diesel particulate Filter; E85=85% Ethanol; EERE=Energy Efficiency and Renewable Energy; EOE=Encyclopedia of Earth; EPA=U.S. Environmental Protection Agency; ETC=Edmonton Trolley Coalition; EVs/CNG=Electric Vehicles/Compressed Natural Gas; FAR=Floor Area Ratio; GHG=Greenhouse Gas; ITE=Institute of Transportation Engineers; kg/m²=kilogram per square meter; km=Kilometer; lb=pound; LEED=Leadership in Energy and Environmental Design; M=Million; NA=Not Available; NEV=Neighborhood Electric Vehicle; NIST=National Institute of Standards and Technology; NO_x=Oxides of Nitrogen; NREL=National Renewable Energy Laboratory; N/S=North/South; PG&E=Pacific Gas and Electric; PM=Particulate Matter; SJVAPCD=San Joaquin Valley Air Pollution Control District; SMAQMD=Sacramento Metropolitan Air Quality Management District; SMUD=Sacramento Municipal Utilities District; SO_x=Sulfur Oxides; SRI=Solar Reflectance Index; TACs=Toxic Air Contaminants; TDM=Transportation Demand Management; TMA=Transportation Management Association; THC=Total Hydrocarbon; ULEV=Ultra Low Emission Vehicle; USGBC=U.S. Green Building Council; and VTPI=Victoria Transit Policy.

State CEQA Guidelines – Section 15064, DETERMINING THE SIGNIFICANCE OF THE ENVIRONMENTAL EFFECTS CAUSED BY A PROJECT:

(a) Determining whether a project may have a significant effect plays a critical role in the CEQA process.

(1) If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, the agency shall prepare a draft EIR.

(2) When a final EIR identifies one or more significant effects, the Lead Agency and each Responsible Agency shall make a finding under Section 15091 for each significant effect and may need to make a statement of overriding considerations under Section 15093 for the project.

(b) The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.

(c) In determining whether an effect will be adverse or beneficial, the Lead Agency shall consider the views held by members of the public in all areas affected as expressed in the whole record before the lead agency. Before requiring the preparation of an EIR, the Lead Agency must still determine whether environmental change itself might be substantial.

(d) In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.

(1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project. Examples of direct physical changes in the environment are the dust, noise, and traffic of heavy equipment that would result from construction of a sewage treatment plant and possible odors from operation of the plant.

(2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity and may lead to an increase in air pollution.

(3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.

(e) Economic and social changes resulting from a project shall not be treated as significant effects on the environment. Economic or social changes may be used, however, to determine that a physical change shall be regarded as a significant effect on the environment. Where a physical change is caused by economic or social effects of a

project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment. If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant. For example, if a project would cause overcrowding of a public facility and the overcrowding causes an adverse effect on people, the overcrowding would be regarded as a significant effect.

(f) The decision as to whether a project may have one or more significant effects shall be based on substantial evidence in the record of the lead agency.

(1) If the lead agency determines there is substantial evidence in the record that the project may have a significant effect on the environment, the lead agency shall prepare an EIR (*Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988). Said another way, if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68).

(2) If the lead agency determines there is substantial evidence in the record that the project may have a significant effect on the environment but the lead agency determines that revisions in the project plans or proposals made by, or agreed to by, the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment then a mitigated negative declaration shall be prepared.

(3) If the lead agency determines there is no substantial evidence that the project may have a significant effect on the environment, the lead agency shall prepare a negative declaration (*Friends of B Street v. City of Hayward* (1980) 106 Cal.App. 3d 988).

(4) The existence of public controversy over the environmental effects of a project will not require preparation of an EIR if there is no substantial evidence before the agency that the project may have a significant effect on the environment.

(5) Argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion support by facts.

(6) Evidence of economic and social impacts that do not contribute to or are not caused by physical changes in the environment is not substantial evidence that the project may have a significant effect on the environment.

(7) The provisions of sections 15162, 15163, and 15164 apply when the project being analyzed is a change to, or further approval for, a project for which an EIR or negative declaration was previously certified or adopted (e.g. a tentative subdivision, conditional use permit). Under case law, the fair argument standard does not apply to determinations of significance pursuant to sections 15162, 15163, and 15164.

(g) After application of the principles set forth above in Section 15064(f)(g), and in marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts

over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.

(h)(1) When assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

(2) A lead agency may determine in an initial study that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than cumulatively considerable.

(3) 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 (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding that the project complies with the specified plan or mitigation program addressing the cumulative problem, an EIR must be prepared for the project.

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

State CEQA Guidelines – Section 15130, DISCUSSION OF CUMULATIVE IMPACTS:

(a)(3). "An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

State CEQA Guidelines – Section 15064.7, THRESHOLDS OF SIGNIFICANCE:

"Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level

of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.”



Appendix B

Mitigation Measure Summary

**Table 16
Mitigation Measure Summary**

Mitigation Measure	Applicable Project/Source Type ¹	Effective	Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other ⁶	Description/Comments	
		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴	Logistical ⁵			
Transportation								
<i>Bicycle/Pedestrian/Transit Measures</i>								
MM T-1: Bike Parking	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	1%-5%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates combined reductions among individual measures (e.g., 2.5% reduction for all bicycle-related measures and one-quarter of 2.5% for each individual measure) (TIAX 2005, EDAW 2006, SMAQMD 2007). VTPI presents % reductions for showers and combined measures in the TDM encyclopedia (VTPI	Yes: Lockers (\$1,200-\$2,950, \$700/bike on average), Racks (\$70-\$2,000, \$70/bike on average).	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Caltrans, Portland Bicycle Master Plan (City of Portland 1998), CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Nonresidential projects provide plentiful short- and long-term bicycle parking facilities to meet peak season maximum demand (e.g., one bike rack space per 20 vehicle/employee parking spaces).
MM T-2: End of Trip Facilities	LD (C, M), I, SP, TP, AQP, RR, P/Mobile		Yes	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Nonresidential projects provide “end-of-trip” facilities including showers, lockers, and changing space (e.g., four clothes lockers and one shower provided for every 80 employee parking spaces, separate facilities for each gender for projects with 160 or more employee parking spaces).
MM T-3: Bike-Parking at Multi-	LD (R, M), SP, AQP, RR,		Yes: Lockers (\$1,200-	Yes (Caltrans 2005,	Yes (Caltrans	Adverse: No Beneficial:		Long-term bicycle parking is provided at apartment

AG=Attorney General; ARB=California Air Resources Board; ASTM=American Society for Testing and Material; BAAQMD=Bay Area Air Quality Management District; BEES= Building for Environmental and Economic Sustainability; CA=California; Caltrans=California Department of Transportation; CAPs=Criteria Air Pollutants; CCAP=Center for Clean Air Policy; CF=Connectivity Factor; CIWMB=California Integrated Waste Management Board; CO= Carbon Monoxide; CO₂=Carbon Dioxide; DGS=Department of General Services; DOE=U.S. Department of Energy; DPF=Diesel particulate Filter; E85=85% Ethanol; EERE=Energy Efficiency and Renewable Energy; EOE=Encyclopedia of Earth; EPA=U.S. Environmental Protection Agency; ETC=Edmonton Trolley Coalition; EVs/CNG=Electric Vehicles/Compressed Natural Gas; FAR=Floor Area Ratio; GHG=Greenhouse Gas; ITE=Institute of Transportation Engineers; kg/m²=kilogram per square meter; km=Kilometer; lb=pound; LEED=Leadership in Energy and Environmental Design; M=Million; NA=Not Available; NEV=Neighborhood Electric Vehicle; NIST=National Institute of Standards and Technology; NO_x=Oxides of Nitrogen; NREL=National Renewable Energy Laboratory; N/S=North/South; PG&E=Pacific Gas and Electric; PM=Particulate Matter; SJVAPCD=San Joaquin Valley Air Pollution Control District; SMAQMD=Sacramento Metropolitan Air Quality Management District; SMUD=Sacramento Municipal Utilities District; SO_x=Sulfur Oxides; SRI=Solar Reflectance Index; TACs=Toxic Air Contaminants; TDM=Transportation Demand Management; TMA=Transportation Management Association; THC=Total Hydrocarbon; ULEV=Ultra Low Emission Vehicle; USGBC=U.S. Green Building Council; and VTPI=Victoria Transit Policy.

**Table 16
Mitigation Measure Summary**

Mitigation Measure	Applicable Project/Source Type ¹	Effective	Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other ⁶	Description/Comments
		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
Unit Residential	P/Mobile	2007). JSA bases estimates on CCAP information (JSA 2004).	\$2,950, \$700/bike on average), Racks (\$70-\$2,000, \$70/bike on average).	Dierkers et al. 2007, VTPI 2007)	2005, Dierkers et al. 2007, VTPI 2007)	CAPs, TACs	complexes or condominiums without garages (e.g., one long-term bicycle parking space for each unit without a garage). Long-term facilities shall consist of one of the following: a bicycle locker, a locked room with standard racks and access limited to bicyclists only, or a standard rack in a location that is staffed and/or monitored by video surveillance 24 hours per day.
MM T-4: Proximity to Bike Path/Bike Lanes	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile		Yes	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Entire project is located within one-half mile of an existing/planned Class I or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility. Project design includes a designated bicycle route connecting all units, on-site bicycle parking facilities, offsite bicycle facilities, site entrances, and primary building entrances to existing Class I or Class II bike lane(s) within one-half mile. Bicycle route connects to all streets contiguous with project site. Bicycle route has minimum conflicts with automobile parking and circulation

**Table 16
Mitigation Measure Summary**

Mitigation Measure	Applicable Project/Source Type ¹	Effective	Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other ⁶	Description/Comments
		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
							facilities. All streets internal to the project wider than 75 feet have Class II bicycle lanes on both sides.

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**Table 16
Mitigation Measure Summary**

Mitigation Measure	Applicable Project/Source Type ¹	Effective	Feasible (Yes/No)			Secondary Effects (Yes/No)	Agency/Organization/Other ⁶	Description/Comments
		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴	Logistical ⁵			
MM T-5: Pedestrian Network	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-10%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates 1% for each individual measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	The project provides a pedestrian access network that internally links all uses and connects to all existing/planned external streets and pedestrian facilities contiguous with the project site. Project design includes a designated pedestrian route interconnecting all internal uses, site entrances, primary building entrances, public facilities, and adjacent uses to existing external pedestrian facilities and streets. Route has minimal conflict with parking and automobile circulation facilities. Streets (with the exception of alleys) within the project have sidewalks on both sides. All sidewalks internal and adjacent to project site are minimum of five feet wide. All sidewalks feature vertical curbs. Pedestrian facilities and improvements such as grade separation, wider sidewalks, and traffic calming are implemented wherever feasible to minimize pedestrian barriers. All site entrances provide pedestrian access.
MM T-6: Pedestrian	LD (R, C, M), I, SP, TP,		Yes	Yes (Dierkers et al. 2007,	Yes (Dierkers et	Adverse: No Beneficial:	Site design and building placement minimize barriers to	

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴	Logistical ⁵			
Barriers Minimized	AQP, RR, P/Mobile			VTPI 2007)	al. 2007, VTPI 2007)	CAPs, TACs		pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and nonresidential uses that impede bicycle or pedestrian circulation are eliminated.
MM T-7: Bus Shelter for Existing/Planned Transit Service	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-2%/High: CCAP presents these % reductions (Dierkers et al., 2007). SMAQMD assigns from .25%-1%, depending on headway frequency (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes: \$15,000-\$70,000.	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, City of Calgary (City of Calgary 2004), CA air quality management and control districts, and cities/counties.	Bus or streetcar service provides headways of one hour or less for stops within one-quarter mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting).

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				Technical ⁴	Logistical ⁵			
MM T-8: Traffic Calming	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-10%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates .25%-1.0% for each individual measure depending on percent of intersections and streets with improvements (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features. All sidewalks internal and adjacent to project site are minimum of five feet wide. All sidewalks feature vertical curbs. Roadways that converge internally within the project are routed in such a way as to avoid "skewed intersections;" which are intersections that meet at acute, rather than right, angles. Intersections internal and adjacent to the project feature one or more of the following pedestrian safety/traffic calming design techniques: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, and roundabouts or mini-circles. Streets internal and adjacent to the project feature pedestrian safety/traffic calming measures such as on-street parking, planter strips with street trees,

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴				Logistical ⁵
							and chicanes/chokers (variations in road width to discourage high-speed travel).	
Parking Measures								
MM T-9: Paid Parking (Parking Cash Out)	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a range of 1.0%-7.2%, depending on cost/day and distance to transit (TIAX 2005, EDAW 2006, SMAQMD 2007). Shoupe presents a 21% reduction [\$5/day for commuters to downtown LA, with elasticity of -0.18 (e.g., if price increases 10%, then solo driving goes down by 1.8% more)] (Shoupe 2005). Urban Transit Institute	Yes: Vary by location and project size.	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Project provides employee and/or customer paid parking system. Project must have a permanent and enforceable method of maintaining user fees for all parking facilities. The facility may not provide customer or employee validations. Daily charge for parking must be equal to or greater than the cost of a transit day/monthly pass plus 20%.

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴				Logistical ⁵
		presents a range of 1%-10% reduction in trips to central city sites, and 2%-4% in suburban sites (VTPI 2007).						
MM T-10: Minimum Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a maximum of 6% (Nelson/Nygaard Consulting Associates, 2005, TIAX 2005, EDAW 2006).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007), Note that in certain areas of the state, the minimum parking required by code is greater than the peak period parking demand for most land uses. Simply meeting minimum code requirements in these areas would not result in an emissions reduction.	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, Governor's Office of Smart Growth (Annapolis, Maryland) (Zimbler), CA air quality management and control districts, and cities/counties.	Provide minimum amount of parking required. Once land uses are determined, the trip reduction factor associated with this measure can be determined by utilizing the ITE parking generation publication. The reduction in trips can be computed as shown below by the ratio of the difference of minimum parking required by code and ITE peak parking demand to ITE peak parking demand for the land uses multiplied by 50%. Percent Trip Reduction = 50 * [(min parking required by code – ITE peak parking demand)/ (ITE peak parking demand)]

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
MM T-11: Parking Reduction Beyond Code/Shared Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a maximum of 12% (Nelson/Nygaard, 2005, TIAX 2005, EDAW 2006).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Provide parking reduction less than code. This measure can be readily implemented through a shared parking strategy, wherein parking is utilized jointly among different land uses, buildings, and facilities in an area that experience peak parking needs at different times of day and day of the week.
MM T-12: Pedestrian Pathway Through Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-4%/Moderate: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates 0.5% reduction for this measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances.

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
MM T-13: Off-Street Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-4%/Moderate: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates a range of 0.1%-1.5% for this measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Parking facilities are not adjacent to street frontage.
MM T-14: Parking Area Tree Cover	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	Annual net CO ₂ reduction of 3.1 kg/m ² canopy cover/Moderate (McPherson 2001).	Yes: \$19 per new tree for CA, cost varies for maintenance, removal and replacement (McPherson 2001).	Yes	Yes	Adverse: VOCs Beneficial: CAPs, TACs	AG, State of CA Department of Justice (Goldberg 2007) and cities/counties (e.g., parking lot ordinances in Sacramento, Davis, and Los Angeles, CA). Provide parking lot areas with 50% tree cover within 10 years of construction, in particular low emitting, low maintenance, native drought resistant trees. Reduces urban heat island effect and requirement for air conditioning, effective when combined with other measures (e.g., electrical maintenance equipment and reflective paving material).
MM T-15: Valet Bicycle Parking	LD (C, M), SP, AQP, TP, RR, P/Mobile	NA/Low	Yes	Yes	Yes: Raley Field (Sacramento, CA)	Adverse: No Beneficial: CAPs, TACs	Raley Field (Sacramento, CA). Provide spaces for the operation of valet bicycle parking at community event “centers” such as amphitheatres, theatres, and stadiums.
MM T-16: Garage Bicycle Storage	LD (R, M), SP, AQP, TP, RR, P/Mobile	NA/Low	Yes: Less than \$200/multiple bike rack.	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	City of Fairview, OR Provide storage space in one-car garages for bicycles and bicycle trailers.

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MM T-17: Preferential Parking for EVs/CNG Vehicles	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	USGBC, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Provide preferential parking space locations for EVs/CNG vehicles.
MM T-18: Reduced/No Parking Fee for EVs/CNG Vehicles	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Hotels (e.g., Argonaut in San Francisco, CA)	Provide a reduced/no parking fee for EVs/CNG vehicles.

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<i>Miscellaneous Measure</i>								
MM T-19: TMA Membership	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-28%/High: CCAP presents a range of 3%-25% for TDMs with complementary transit and land use measures (Dierkers et al. 2007). VTPI presents a range of 6%-7% in the TDM encyclopedia (VTPI 2007). URBEMIS offers a 2%-10% range in reductions for a TDM that has 5 elements that are pedestrian and transit friendly and 1%-5% for 3 elements. SMAQMD presents a reduction of 5% (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other nonrevocable funding mechanism. TDMs have been shown to reduce employee vehicle trips up to 28% with the largest reductions achieved through parking pricing and transit passes. The impact depends on the travel alternatives.
MM T-20: ULEV	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes: Higher than corresponding gasoline models.	Yes	Yes: Fueling stations might not be readily available depending on location. More than 900 E85 fueling	Adverse: No Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Use of and/or provide ULEV that are 50% cleaner than average new model cars (e.g., natural gas, ethanol, electric).

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					stations in the U.S., 5 in CA. Vehicles available in select regions only		
MM T-21: Flex Fuel Vehicles	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	5466.97 lb GHG/year/Low (DOE Fuel Economy)	Yes: E85 costs less than gasoline per gallon, but results in lower fuel economy.	Yes	Yes: More than 900 E85 fueling stations in the U.S., 5 in CA. Vehicles available in select regions only	Adverse: Yes Issues with the energy intensive ethanol production process (e.g., wastewater treatment requirements). Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., SJVAPCD). Use of and/or provide vehicles that utilize gasoline/ethanol blends (e.g., E85).
Design							
Commercial & Residential Building Design Measures							
MM D-1: Office/Mixed Use Density	LD (C, M), SP, TP, AQP, RR, P/Mobile	0.05%-2%/Moderate: This range is from SMAQMD, depending	Yes	Yes (VTPI 2007)	Yes (VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties Project provides high density office or mixed-use proximate to transit. Project must provide

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		on FAR and headway frequencies (Nelson/Nygaard Consulting Associates 2005, EDAW 2006, SMAQMD 2007).				(e.g., SMAQMD).	safe and convenient pedestrian and bicycle access to all transit stops within one-quarter mile.	
MM D-2: Orientation to Existing/Planned Transit, Bikeway, or Pedestrian Corridor	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	0.4%-1%/Moderate: CCAP attributes a 0.5% reduction per 1% improvement in transit frequency (Dierkers et al. 2007). SMAQMD presents a range of 0.25%-5% (JSA 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007)	Yes (Dierkers et al. 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project is oriented towards existing transit, bicycle, or pedestrian corridor. Setback distance between project and existing or planned adjacent uses is minimized or nonexistent. Setback distance between different buildings on project site is minimized. Setbacks between project buildings and planned or existing sidewalks are minimized. Buildings are oriented towards existing or planned street frontage. Primary entrances to buildings are located along planned or existing public street frontage. Project provides bicycle access to any planned bicycle corridor(s). Project provides pedestrian access to any planned pedestrian corridor(s).
MM D-3: Services Operational	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	0.5%-5%/Moderate	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides on-site shops and services for employees.

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Mitigation Measure	Applicable Project/Source Type ¹	Effective Emissions Reduction/Score ²	Feasible (Yes/No) Cost (Yes/No) ³	Technical ⁴		Secondary Effects (Yes/No)	Agency/Organization/Other ⁶	Description/Comments
				Technical ⁴	Logistical ⁵			
MM D-4: Residential Density (Employ Sufficient Density for New Residential Development to Support the Use of Public Transit)	LD (R, M), SP, TP, AQP, RR, P/Mobile	1%-40%/High: #7, EPA presents a range of 32%-40% (EPA 2006). SMAQMD presents a range of 1%-12% depending on density and headway frequencies (Nelson/Nygaard Consulting Associates 2005, JSA 2005, EDAW 2006, SMAQMD 2007). Nelson/Nygaard presents a trip reduction formula: Trip Reduction = $0.6 * (1 - (19749 * ((4.814 + \text{households per residential acre}) / (4.814 + 7.14))) ^ - 06.39) / 25914$.	Yes	Yes (VTPI 2007, Holtzclaw 2007)	Yes (VTPI 2007, Holtzclaw 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides high-density residential development. Transit facilities must be within one-quarter mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within one-quarter mile of project border.
MM D-5: Street Grid	LD (R, C, M), I, SP, TP, AQP, RR,	1%/Moderate: SMAQMD presents this % reduction (JSA	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007,	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties	Multiple and direct street routing (grid style). This measure only applies to projects

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	P/Mobile	2005, EDAW 2006, SMAQMD 2007).				(e.g., SMAQMD).	with an internal CF ≥ 0.80 , and average of one-quarter mile or less between external connections along perimeter of project. [CF= # of intersections / (# of cul-de-sacs + intersections)]. Cul-de-sacs with bicycle/pedestrian through access may be considered “complete intersections” when calculating the project’s internal connectivity factor. External connections are bike/pedestrian pathways and access points, or streets with safe and convenient bicycle and pedestrian access that connect the project to adjacent streets, sidewalks, and uses. If project site is adjacent to undeveloped land; streets, pathways, access points, and right-of-ways that provide for future access to adjacent uses may count for up to 50% of the external connections. Block perimeter (the sum of the measurement of the length of all block sides) is limited to no more than 1,350 feet. Streets internal to the project should connect to streets external to the project whenever possible.

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MM D-6: NEV Access	LD (R, C, M), SP, TP, AQP, RR, P/Mobile	0.5%-1.5%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (Litman 1999, Sperling 1994)	Yes (Litman 1999, Sperling 1994)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD). Make physical development consistent with requirements for neighborhood electric vehicles. Current studies show that for most trips, NEVs do not replace gas-fueled vehicles as the primary vehicle.
MM D-7: Affordable Housing Component	LD (R, M), SP, TP, AQP, RR, P/Mobile	0.4%-6%/Moderate: SMAQMD presents this % reduction (Nelson/Nygaard Consulting Associates 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD). Residential development projects of five or more dwelling units provide a deed-restricted low-income housing component on-site (or as defined in the code). Developers who pay into In-Lieu Fee Programs are not considered eligible to receive credit for this measure. The award of emission reduction credit shall be based only on the proportion of affordable housing developed on-site because in-lieu programs simply induce a net increase in development. Percentage reduction shall be calculated according to the following formula:

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							% reduction = % units deed-restricted below market rate housing * 0.04
MM D-8: Recharging Area	LD (R, M), SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Provide residential buildings with a “utility” room or space for recharging batteries, whether for use in a car, electric lawnmower, other electric landscaping equipment, or even batteries for small items such as flashlights.
Mixed-Use Development Measures							
MM D-9: Urban Mixed-Use	LD (M), SP, TP, AQP, RR, P/Mobile	3%-9%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD). Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with functional interrelationships and a coherent physical design.
MM D-10: Suburban Mixed-Use	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	3%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD). Have at least three of the following on site and/or offsite within one-quarter mile: Residential Development, Retail Development, Park, Open Space, or Office.
MM D-11: Other Mixed-Use	LD (R, M), SP, TP, AQP, RR, P/Mobile	1%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD). All residential units are within one-quarter mile of parks, schools or other civic uses.

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		2006, SMAQMD 2007).						
MM D-12: Infill Development	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	3%-30%/High: Infill development reduces vehicle trips and VMT by 3% and 20%, respectively (Fehr & Peers 2007). CCAP identifies a site level VMT reduction range of 20%-30% (Dierkers et al. 2007).	Yes	Yes (Dierkers et al. 2007)	Yes (Dierkers et al. 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project site is on a vacant infill site, redevelopment area, or brownfield or greyfield lot that is highly accessible to regional destinations, where the destinations rating of the development site (measured as the weighted average travel time to all other regional destinations) is improved by 100% when compared to an alternate greenfield site.
Miscellaneous Measures								
MM D-13: Electric Lawnmower	LD (R, M), SP, AQP, RR, P/Area	1%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Provide a complimentary electric lawnmower to each residential buyer.

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MM D-14: Enhanced Recycling/Waste Reduction, Reuse, Composting	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Low	Yes	Yes	Yes: Association with social awareness.	Adverse: No Beneficial: CAPs, TACs	CIWMB	Provide infrastructure/education that promotes the avoidance of products with excessive packaging, recycle, buying of refills, separating of food and yard waste for composting, and using rechargeable batteries.
MM D-15: LEED Certification	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Moderate	Yes: Receive tax rebates, incentives (e.g., EDAW San Diego office interior remodel cost \$1,700,000 for 32,500 square feet) (USGBC 2007)	Yes	Yes: More than 700 buildings of different certifications in CA (USGBC 2007).	Adverse: No Beneficial: CAPs, TACs	USGBC, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.
MM D-16: Retro-Commissioning	LD (C, M), I, SP, AQP, RR, P/Stationary & Area	8%-10% reduction in energy usage/Moderate: (Mills et al. 2004)	Yes: Average \$0.28/square feet, varies with building size (Haasl and Sharp 1999).	Yes	Yes: 27 projects underway in CA, 21 more to be completed in 2007, mostly state buildings owned by DGS (DGS 2007).	Adverse: No Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	The process ensures that all building systems perform interactively according to the contract documents, the design intent and the owner's operational needs to optimize energy performance.
MM D-17 Landscaping	LD (R, C, M), I, SP, AQP, RR,	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Alliance for the Chesapeake Bay, EPA Green Landscaping	Project shall use drought resistant native trees, trees with low emissions and high carbon

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	P/Stationary & Area						Resources	sequestration potential. Evergreen trees on the north and west sides afford the best protection from the setting summer sun and cold winter winds. Additional considerations include the use of deciduous trees on the south side of the house that will admit summer sun; evergreen plantings on the north side will slow cold winter winds; constructing a natural planted channel to funnel summer cooling breezes into the house. Neighborhood CCR's not requiring that front and side yards of single family homes be planted with turf grass. Vegetable gardens, bunch grass, and low-water landscaping shall also be permitted, or even encouraged.
MM D-18: Local Farmers' Market	LD (M), SP/Mobile, Stationary, &	NA/Low	Yes	Yes	Yes: Associated with social	Adverse: No Beneficial: CAPs, TACs	Cities/counties (e.g., Davis, Sacramento)	Project shall dedicate space in a centralized, accessible location for a weekly farmers' market.

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	Area							choice and public awareness.
MM D-19: Community Gardens	LD (M), SP/Mobile, Stationary, & Area	NA/Low	Yes	Yes	Yes: Associated with social choice and public awareness.	Adverse: No Beneficial: CAPs, TACs	Cities/counties (e.g., Davis)	Project shall dedicate space for community gardens.
Energy Efficiency/Building Component								
MM E-1: High-Efficiency Pumps	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Project shall use high-efficiency pumps.
MM E-2: Wood Burning Fireplaces/Stoves	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low: EDAW 2006	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project does not feature fireplaces or wood burning stoves.
MM E-3: Natural Gas Stove	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low: EDAW 2006	Yes: Cost of stove—\$350 (gas) and \$360 (electric) same brand, total yearly cost of \$42.17 as opposed to \$56.65 for electric (Saving Electricity 2006).	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project features only natural gas or electric stoves in residences.

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MM E-4: Energy Star Roof	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	0.5%-1%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes: 866 Energy Star labeled buildings in California (Energy Star 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project installs Energy Star labeled roof materials.
MM E-5: On- site Renewable Energy System	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	1%-3%/Moderate: SMAQMD presents this % reduction (USGBC 2002 and 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides onsite renewable energy system(s). Nonpolluting and renewable energy potential includes solar, wind, geothermal, low-impact hydro, biomass and bio-gas strategies. When applying these strategies, projects may take advantage of net metering with the local utility.

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MM E-6: Exceed Title 24	LD (R, C, M), I, GSP, AQP, RR, P/Stationary & Area	1%/Moderate: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (PG&E 2002, SMUD 2006)	Yes (PG&E 2002, SMUD 2006)	Adverse: No Beneficial: CAPs, TACs	PG&E, SMUD, CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project exceeds title 24 requirements by 20%.
MM E-7: Solar Orientation	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	0.5%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project orients 75% or more of homes and/or buildings to face either north or south (within 30° of N/S). Building design includes roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows. Trees, other landscaping features and other buildings are sited in such a way as to maximize shade in the summer and maximize solar access to walls and windows in the winter.
MM E-8: Nonroof Surfaces	LD (R, C, M), I, GSP, AQP, RR, P/Stationary & Area	1.0%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the site's nonroof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50% of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50% impervious) for a minimum of

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								50% of the parking lot area. The mitigation measure reduces heat islands (thermal gradient differences between developed and undeveloped areas to minimize impact on microclimate and human and wildlife habitats. This measure requires the use of patented or copyright protected methodologies created by the ASTM. The SRI is a measure of the constructed surface's ability to reflect solar heat, as shown by a small rise in temperature. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is "0" and a standard white (reflectance 0.80, emittance 0.90) is 100. To calculate SRI for a given material, obtain the reflectance value and emittance value for the material. SRI is calculated according to ASTM E 1980-01. Reflectance is measured

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴	Logistical ⁵			
								according to ASTM E 903, ASTM E 1918, or ASTM C 1549. Emittance is measured according to ASTM E 408 or ASTM C 1371. Default values for some materials will be available in the LEED-NC v2.2 Reference Guide.
MM E-9: Low-Energy Cooling	LD (C, M), I, SP, AQP, RR, P/Stationary & Area	1%-10%/Low: EDAW presents this percent reduction range (EDAW 2006).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project optimizes building's thermal distribution by separating ventilation and thermal conditioning systems.
MM E-10: Green Roof	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	1.0%/Moderate: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: Increased Water Consumption Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Install a vegetated roof that covers at least 50% of roof area. The reduction assumes that a vegetated roof is installed on a least 50% of the roof area or that a combination high albedo and vegetated roof surface is installed that meets the following standard: (Area of SRI Roof/0.75)+(Area of vegetated roof/0.5) >= Total Roof Area. Water consumption reduction measures shall be considered in the design of the green roof.
MM E-11: EV Charging Facilities	LD (C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: \$500-\$5000/vehicle site (PG&E 1999)	Yes	Yes: 381 facilities in CA (Clean Air Maps 2007).	Adverse: No Beneficial: CAPs, TACs	DOE, EERE, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Project installs EV charging facilities.
MM E-12:	LD (R, C, M),	NA/Low: Increasing	Yes: Light	Yes	Yes: Apply	Adverse: No		Project provides light-colored

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴				Logistical ⁵
Light-Colored Paving	I, SP, AQP, RR, P/Stationary & Area	the albedo of 1,250 km of pavement by 0.25 would save cooling energy worth \$15M per year.	colored aggregates and white cement are more expensive than gray cement. Certain blended cements are very light in color and may reflect similarly to white cement at an equivalent cost to normal gray cement.	Yes	natural sand or gravel colored single surface treatments to asphalt (EOE 2007).	Beneficial: CAPs, TACs	CEC	paving (e.g., increased albedo pavement).
MM E-13: Cool Roofs	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: 0.75–1.5/square feet coating (EPA 2007a)	Yes	Yes: Over 90% of the roofs in the United States are dark colored	Adverse: No Beneficial: CAPs, TACs	CEC	Project provides cool roofs. Highly reflective, highly emissive roofing materials that stay 50-60°F cooler than a normal roof under a hot summer sun. CA's Cool Savings

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					(EPA 2007a).			Program provided rebates to building owners for installing roofing materials with high solar reflectance and thermal emittance. The highest rebate went to roofs on air conditioned buildings, while buildings with rooftop ducts and other nonresidential buildings were eligible for slightly less. The program aimed to reduce peak summer electricity demand and was administered by the CEC.
MM E-14: Solar Water Heaters	LD (R, M), SP, AQP, RR, P/Stationary & Area	20%–70% reduction in cooling energy needs/Moderate	Yes: \$1675/20 square feet, requires a 50 gallon tank, annual operating cost of \$176 (DOE 2007).	Yes	Yes: Based on solar orientation, building codes, zoning ordinances.	Adverse: No Beneficial: CAPs, TACs	Europe	Project provides solar water heaters.
MM E-15: Electric Yard Equipment Compatibility	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: \$75–\$250/outlet from existing circuit (Cost Helper 2007).	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Project provides electrical outlets at building exterior areas.
MM E-16: Energy Efficient Appliance Standards	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: Varies for each appliance—higher capital costs, lower operating costs (Energy	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs		Project uses energy efficient appliances (e.g., Energy Star).

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
			Star 2007).				
MM E-17: Green Building Materials	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low: 25-30% more efficient on average.	Yes	Yes: BEES software allows users to balance the environmental and economic performance of building products; developed by NIST (NIST 2007).	Yes	Adverse: No Beneficial: CAPs, TACs	Project uses materials which are resource efficient, recycled, with long life cycles and manufactured in an environmentally friendly way.
MM E-18: Shading Mechanisms	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: Up to \$450 annual energy savings (Energy Star 2007).	Yes: Higher capital costs, lower operating and maintenance costs (Energy Star 2007).	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs	Install energy-reducing shading mechanisms for windows, porch, patio and walkway overhangs.

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		Emissions Reduction/Score ²	Cost (Yes/No) ³	Technical ⁴			
MM E-19: Ceiling/Whole-House Fans	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: 50% more efficient than conventional fans (Energy Star 2007).	Yes: \$45-\$200/fan, installation extra (Lowe's 2007).	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs	Install energy-reducing ceiling/whole-house fans.
MM E-20: Programmable Thermostats	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: \$100 annual savings in energy costs (Energy Star 2007).	Yes: \$60/LCD display and 4 settings for typical residential use (Lowe's 2007).	Yes	Yes: Major retail stores.	Adverse: Yes, Mercury Beneficial: CAPs, TACs	Install energy-reducing programmable thermostats that automatically adjust temperature settings.
MM E-21: Passive Heating and Cooling Systems	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low	Yes: \$800 (wall heaters) to \$4,000+ (central systems)	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Install energy-reducing passive heating and cooling systems (e.g., insulation and ventilation).
MM E-22: Day Lighting Systems	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low	Yes: \$1,300 to \$1,500 depending upon the kind of roof (Barrier 1995), installation extra.	Yes	Yes: Work well only for space near the roof of the building, little benefit in multi-floor buildings.	Adverse: No Beneficial: CAPs, TACs	Install energy-reducing day lighting systems (e.g., skylights, light shelves and interior transom windows).
MM E-23: Low-Water Use Appliances	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: Avoided water agency cost for using water-efficient kitchen pre-rinse spray valves of \$65.18 per acre-foot.	Yes: Can return their cost through reduction in water consumption,	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Require the installation of low-water use appliances.

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							pumping, and treatment.
MM E-24: Goods Transport by Rail	LD (C, M), I, SP, AQP, RR, P/Mobile	NA/Moderate	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	ARB Goods Movement Plan (ARB 2007) Provide a spur at nonresidential projects to use nearby rail for goods movement.
Social Awareness/Education							
MM S-1: GHG Emissions Reductions Education	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Mobile	NA/Low	Yes	Yes	Yes: Similar programs currently exist in CA.	Adverse: No Beneficial: CAPs, TACs	Provide local governments, businesses, and residents with guidance/protocols/information on how to reduce GHG emissions (e.g., energy saving, food miles).
MM S-2: School Curriculum	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Mobile	NA/Low	Yes	Yes	Yes: Similar programs currently exist in CA.	Adverse: No Beneficial: CAPs, TACs	Include how to reduce GHG emissions (e.g., energy saving, food miles) in the school curriculum.
Construction							
MM C-1: ARB-Certified Diesel Construction Equipment	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes: Oxidation Catalysts, \$1,000-	Yes	Yes	Adverse: Yes, NO _x Beneficial: CAPs, TACs	AG, EPA, ARB, and CA air quality management and pollution control districts. Use ARB-certified diesel construction equipment. Increases CO ₂ emissions when trapped CO and carbon particles

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			Emissions Reduction/Score ²	Cost (Yes/No) ³			
			\$2,000. DPF, \$5000-\$10,000; installation extra (EPA 2007b).				are oxidized (Catalyst Products 2007, ETC 2007).
MM C-2: Alternative Fuel Construction Equipment	LD (R, C, M), NA/Low I, SP, TP, AQP, RR, P/Mobile	Yes	Yes	Yes	Adverse: Yes, THC, NO _x Beneficial: CO, PM, SO _x	AG, EPA, ARB, and CA air quality management and pollution control districts.	Use alternative fuel types for construction equipment. At the tailpipe biodiesel emits 10% more CO ₂ than petroleum diesel. Overall lifecycle emissions of CO ₂ from 100% biodiesel are 78% lower than those of petroleum diesel (NREL 1998, EPA 2007b).
MM C-3: Local Building Materials	LD (R, C, M), NA/Low I, SP, TP, AQP, RR, P/Mobile	Yes	Yes	Yes: Depends on location of building material manufacture sites.	Adverse: No Beneficial: CAPs, TACs		Use locally made building materials for construction of the project and associated infrastructure.
MM C-4: Recycle Demolished Construction Material	LD (R, C, M), NA/Low I, SP, TP, AQP, RR, P/Mobile	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

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Miscellaneous							
MM M-1: Off-Site Mitigation Fee Program	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile & Area	NA/Moderate-High: Though there is currently no program in place, the potential for real and quantifiable reductions of GHG emissions could be high if a defensible fee program were designed.	Yes	Yes	No: Program does not exist in CA, but similar programs currently exist (e.g., Carl Moyer Program, SJVAPCD Rule 9510, SMAQMD Off-Site Construction Mitigation Fee Program).	Adverse: No Beneficial: CAPs, TACs	Provide/Pay into an off-site mitigation fee program, which focuses primarily on reducing emissions from existing development and buildings through retro-fit (e.g., increased insulation).
MM M-2: Offset Purchase	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Area	NA/Low	Yes	Yes	No: ARB has not adopted official program, but similar programs	No	Provide/purchase offsets for additional emissions by acquiring carbon credits or engaging in other market “cap and trade” systems.

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currently exist.							
Regional Transportation Plan Measures							
MM RTP-1: Dedicate High Occupancy Vehicle (HOV) lanes prior to adding capacity to existing highways.	RTP	Yes	Yes	Yes	Adverse: possible local CO Beneficial: regional CAPs, TACs	Caltrans, local government	Evaluate the trip reduction (and GHG reduction) potential of adding HOV lanes prior to adding standard lanes.
MM RTP-2: Implement toll/user fee programs prior to adding capacity to existing highways.	RTP	Yes	Yes	Yes	Adverse: possible local CO. Beneficial: regional CAPs, TACs	Caltrans	Evaluate price elasticity and associated trip reduction (and GHG reduction) potential with adding or increasing tolls prior to adding capacity to existing highways.
<p>Note: ¹ Where LD (R, C, M) =Land Development (Residential, Commercial, Mixed-Use), I=Industrial, GP=General Plan, SP=Specific Plan, TP=Transportation Plans, AQP=Air Quality Plans, RR=Rules/Regulations, and P=Policy. It is important to note that listed project types may not be directly specific to the mitigation measure (e.g., TP, AQP, RR, and P) as such could apply to a variety of source types, especially RR and P. ² This score system entails ratings of high, moderate, and low that refer to the level of the measure to provide a substantive, reasonably certain (e.g., documented emission reductions with proven technologies), and long-term reduction of GHG emissions. ³ Refers to whether the measure would provide a cost-effective reduction of GHG emissions based on available documentation. ⁴ Refers to whether the measure is based on currently, readily available technology based on available documentation. ⁵ Refers to whether the measure could be implemented without extraordinary effort based on available documentation. ⁶ List is not meant to be all inclusive. Source: Data compiled by EDAW in 2007</p>							

**Table 17
General Planning Level Mitigation Strategies Summary**

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
MS G-1: Adopt a GHG reduction plan	GP/ Mobile, Stationary, & Area	City of San Bernardino	<p>- Adopt GHG reduction targets for the planning area, based on the current legislation providing direction for state-wide targets, and update the plan as necessary.</p> <p>-The local government agency should serve as a model by inventorying its GHG emissions from agency operations, and implementing those reduction goals.</p>
Circulation			
MS G-2: Provide for convenient and safe local travel	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<p>- Create a gridded street pattern with small block sizes. This promotes walkability through direct routing and ease of navigation.</p> <p>-Maintain a high level of connectivity of the roadway network. Minimize cul-de-sacs and incomplete roadway segments.</p> <p>-Plan and maintain an integrated, hierarchical and multi-modal system of roadways, pedestrian walks, and bicycle paths throughout the area.</p> <p>-Apply creative traffic management approaches to address congestion in areas with unique problems, particularly on roadways and intersections in the vicinity of schools in the morning and afternoon peak hours, and near churches, parks and community centers.</p> <p>-Work with adjacent jurisdictions to address the impacts of regional development patterns (e.g. residential development in surrounding communities, regional universities, employment centers, and commercial developments) on the circulation system.</p> <p>-Actively promote walking as a safe mode of local travel, particularly for children attending local schools. -Employ traffic calming methods such as median landscaping and provision of bike or transit lanes to slow traffic, improve roadway capacity, and address safety issues.</p>
MS G-3: Enhance the regional transportation network and maintain effectiveness	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<p>-Encourage the transportation authority to reduce fees for short distance trips.</p> <p>-Ensure that improvements to the traffic corridors do not negatively impact the operation of local roadways and land uses.</p>

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			<ul style="list-style-type: none"> -Cooperate with adjacent jurisdictions to maintain adequate service levels at shared intersections and to provide adequate capacity on regional routes for through traffic. -Support initiatives to provide better public transportation. Work actively to ensure that public transportation is part of every regional transportation corridor. - Coordinate the different modes of travel to enable users to transfer easily from one mode to another. -Work to provide a strong paratransit system that promotes the mobility of all residents and educate residents about local mobility choices. - Promote transit-oriented development to facilitate the use of the community’s transit services.
<p>MS G-4: Promote and support an efficient public transportation network connecting activity centers in the area to each other and the region.</p>	GP/ Mobile	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Promote increased use of public transportation and support efforts to increase bus service range and frequency within the area as appropriate. -Enhance and encourage provision of attractive and appropriate transit amenities, including shaded bus stops, to encourage use of public transportation. -Encourage the school districts, private schools and other operators to coordinate local bussing and to expand ride-sharing programs. All bussing options should be fully considered before substantial roadway improvements are made in the vicinity of schools to ease congestion.
<p>MS G-5: Establish and maintain a comprehensive system, which is safe and convenient, of pedestrian ways and bicycle routes that provide viable options to travel by automobile.</p>	GP/ Mobile	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Improve area sidewalks and rights-of-way to make them efficient and appealing for walking and bicycling safely. Coordinate with adjacent jurisdictions and regional agencies to improve pedestrian and bicycle trails, facilities, signage, and amenities. -Provide safe and convenient pedestrian and bicycle connections to and from town centers, other commercial districts, office complexes, neighborhoods, schools, other major activity centers, and surrounding communities. -Work with neighboring jurisdictions to provide well-designed pedestrian and bicycle crossings of major roadways. -Promote walking throughout the community. Install sidewalks where missing and make improvements

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			<p>to existing sidewalks for accessibility purposes. Particular attention should be given to needed sidewalk improvement near schools and activity centers.</p> <ul style="list-style-type: none"> -Encourage businesses or residents to sponsor street furniture and landscaped areas. - Strive to provide pedestrian pathways that are well shaded and pleasantly landscaped to encourage use. - Attract bicyclists from neighboring communities to ride their bicycles or to bring their bicycles on the train to enjoy bicycling around the community and to support local businesses. - Meet guidelines to become nationally recognized as a Bicycle-Friendly community. - Provide for an education program and stepped up code enforcement to address and minimize vegetation that degrades access along public rights-of-way. -Engage in discussions with transit providers to increase the number of bicycles that can be accommodated on buses
<p>MS G-6: Achieve optimum use of regional rail transit.</p>	<p>GP/ Mobile</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Support regional rail and work with rail authority to expand services. - Achieve better integration of all transit options. -Work with regional transportation planning agencies to finance and provide incentives for multimodal transportation systems. - Promote activity centers and transit-oriented development projects around the transit station.
<p>MS G-7: Expand and optimize use of local and regional bus and transit systems.</p>	<p>GP/ Mobile</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Encourage convenient public transit service between area and airports. -Support the establishment of a local shuttle to serve commercial centers. -Promote convenient, clean, efficient, and accessible public transit that serves transit-dependent riders and attracts discretionary riders as an alternative to reliance on single-occupant automobiles.

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			<ul style="list-style-type: none"> - Empower seniors and those with physical disabilities who desire maximum personal freedom and independence of lifestyle with unimpeded access to public transportation. -Integrate transit service and amenities with surrounding land uses and buildings.
Conservation, Open Space			
<p>MS G-8: Emphasize the importance of water conservation and maximizing the use of native, low-water landscaping.</p>	<p>GP/Stationary & Area</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Reduce the amount of water used for landscaping and increase use of native and low water plants. Maximize use of native, low-water plants for landscaping of areas adjacent to sidewalks or other impermeable surfaces. -Encourage the production, distribution and use of recycled and reclaimed water for landscaping projects throughout the community, while maintaining urban runoff water quality objectives. -Promote water conservation measures, reduce urban runoff, and prevent groundwater pollution within development projects, property maintenance, area operations and all activities requiring approval. -Educate the public about the importance of water conservation and avoiding wasteful water habits. -Work with water provider in exploring water conservation programs, and encourage the water provider to offer incentives for water conservation.
<p>MS G-9: Improve air quality within the region.</p>	<p>GP/ Mobile, Stationary, & Area</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Integrate air quality planning with area land use, economic development and transportation planning efforts. -Support programs that reduce air quality emissions related to vehicular travel. -Support alternative transportation modes and technologies, and develop bike- and pedestrian-friendly neighborhoods to reduce emissions associated with automobile use. -Encourage the use of clean fuel vehicles. -Promote the use of fuel-efficient heating and cooling equipment and other appliances, such as water

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General Planning Level Mitigation Strategies Summary

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
			<p>heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.</p> <ul style="list-style-type: none"> - Promote the use of clean air technologies such as fuel cell technologies, renewable energy sources, UV coatings, and alternative, non-fossil fuels. -Require the planting of street trees along streets and inclusion of trees and landscaping for all development projects to help improve airshed and minimize urban heat island effects. - Encourage small businesses to utilize clean, innovative technologies to reduce air pollution. - Implement principles of green building. - Support jobs/housing balance within the community so more people can both live and work within the community. To reduce vehicle trips, encourage people to telecommute or work out of home or in local satellite offices.
<p>MS G-10: Encourage and maximize energy conservation and identification of alternative energy sources.</p>	<p>GP/ Stationary & Area</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Encourage green building designs for new construction and renovation projects within the area. -Coordinate with regional and local energy suppliers to ensure adequate supplies of energy to meet community needs, implement energy conservation and public education programs, and identify alternative energy sources where appropriate. -Encourage building orientations and landscaping that enhance natural lighting and sun exposure. -Encourage expansion of neighborhood-level products and services and public transit opportunities throughout the area to reduce automobile use. - Incorporate the use of energy conservation strategies in area projects. - Promote energy-efficient design features, including appropriate site orientation, use of light color roofing and building materials, and use of evergreen trees and wind-break trees to reduce fuel consumption for heating and cooling.

Table 17
General Planning Level Mitigation Strategies Summary

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
			<ul style="list-style-type: none"> -Explore and consider the cost/benefits of alternative fuel vehicles including hybrid, natural gas, and hydrogen powered vehicles when purchasing new vehicles. -Continue to promote the use of solar power and other energy conservation measures. - Encourage residents to consider the cost/benefits of alternative fuel vehicles. - Promote the use of different technologies that reduce use of non-renewable energy resources. -Facilitate the use of green building standards and LEED in both private and public projects. -Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate. -Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment. - Investigate the feasibility of using solar (photovoltaic) street lights instead of conventional street lights that are powered by electricity in an effort to conserve energy. - Encourage cooperation between neighboring development to facilitate on-site renewable energy supplies or combined heat and power co-generation facilities that can serve the energy demand of contiguous development.

**Table 17
General Planning Level Mitigation Strategies Summary**

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
<p>MS G-11: Preserve unique community forests, and provide for sustainable increase and maintenance of this valuable resource.</p>	<p>GP/Stationary & Area</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> - Develop a tree planting policy that strives to accomplish specific % shading of constructed paved and concrete surfaces within five years of construction. -Provide adequate funding to manage and maintain the existing forest, including sufficient funds for tree planting, pest control, scheduled pruning, and removal and replacement of dead trees. -Coordinate with local and regional plant experts in selecting tree species that respect the natural region in which Claremont is located, to help create a healthier, more sustainable urban forest. - Continue to plant new trees (in particular native tree species where appropriate), and work to preserve mature native trees. -Increase the awareness of the benefits of street trees and the community forest through a area wide education effort. -Encourage residents to properly care for and preserve large and beautiful trees on their own private property.
Housing			
<p>MS G-12: Provide affordability levels to meet the needs of community residents.</p>	<p>GP/ Mobile</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Encourage development of affordable housing opportunities throughout the community, as well as development of housing for elderly and low and moderate income households near public transportation services. -Ensure a portion of future residential development is affordable to low and very low income households.
Land Use			
<p>MS G-13: Promote a visually-cohesive urban form and establish connections between the urban core and outlying portions of the</p>	<p>GP/ Mobile, Stationary, & Area</p>	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<ul style="list-style-type: none"> -Preserve the current pattern of development that encourages more intense and higher density development at the core of the community and less intense uses radiating from the central core. -Create and enhance landscaped greenway, trail and sidewalk connections between neighborhoods and to commercial areas, town centers, and parks.

**Table 17
General Planning Level Mitigation Strategies Summary**

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
community.			<p>-Identify ways to visually identify and physically connect all portions of the community, focusing on enhanced gateways and unifying isolated and/or outlying areas with the rest of the area.</p> <p>-Study and create a diverse plant identity with emphasis on drought-resistant native species.</p>
<p>MS G-14: Provide a diverse mix of land uses to meet the future needs of all residents and the business community.</p>	GP/ Mobile	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<p>-Attract a broad range of additional retail, medical, and office uses providing employment at all income levels.</p> <p>-Support efforts to provide beneficial civic, religious, recreational, cultural and educational opportunities and public services to the entire community.</p> <p>-Coordinate with public and private organizations to maximize the availability and use of parks and recreational facilities in the community.</p> <p>-Support development of hotel and recreational commercial land uses to provide these amenities to local residents and businesses.</p>
<p>MS G-15: Collaborate with providers of solid waste collection, disposal and recycling services to ensure a level of service that promotes a clean community and environment.</p>	GP/ Stationary, & Area	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<p>-Require recycling, composting, source reduction and education efforts throughout the community, including residential, businesses, industries, and institutions, within the construction industry, and in all sponsored activities.</p>
<p>MS G-16: Promote construction, maintenance and active use of publicly- and privately-operated parks, recreation programs, and a community center.</p>	GP/ Mobile	<p>Cities/Counties (e.g., Aliso Viejo, Claremont)</p>	<p>-Work to expand and improve community recreation amenities including parks, pedestrian trails and connections to regional trail facilities.</p> <p>-As a condition upon new development, require payment of park fees and/or dedication and provision of parkland, recreation facilities and/or multi-use trails that improve the public and private recreation system.</p> <p>-Research options or opportunities to provide necessary or desired community facilities.</p>

Table 17
General Planning Level Mitigation Strategies Summary

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
MS G-17: Promote the application of sustainable development practices.	GP/ Mobile, Stationary, & Area	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> - Encourage sustainable development that incorporates green building best practices and involves the reuse of previously developed property and/or vacant sites within a built-up area. - Encourage the conservation, maintenance, and rehabilitation of the existing housing stock. -Encourage development that incorporates green building practices to conserve natural resources as part of sustainable development practices. -Avoid development of isolated residential areas in the hillsides or other areas where such development would require significant infrastructure investment, adversely impact biotic resources. - Provide land area zoned for commercial and industrial uses to support a mix of retail, office, professional, service, and manufacturing businesses.
MS G-18: Create activity nodes as important destination areas, with an emphasis on public life within the community.	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> -Provide pedestrian amenities, traffic-calming features, plazas and public areas, attractive streetscapes, shade trees, lighting, and retail stores at activity nodes. -Provide for a mixture of complementary retail uses to be located together to create activity nodes to serve adjacent neighborhoods and to draw visitors from other neighborhoods and from outside the area.
MS G-19: Make roads comfortable, safe, accessible, and attractive for use day and night.	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> -Provide crosswalks and sidewalks along streets that are accessible for people with disabilities and people who are physically challenged. -Provide lighting for walking and nighttime activities, where appropriate. -Provide transit shelters that are comfortable, attractive, and accommodate transit riders.
MS G-20: Maintain and expand where possible the system of neighborhood connections that attach neighborhoods to larger roadways.	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> - Provide sidewalks where they are missing, and provide wide sidewalks where appropriate with buffers and shade so that people can walk comfortably. -Make walking comfortable at intersections through traffic-calming, landscaping, and designated crosswalks.

**Table 17
General Planning Level Mitigation Strategies Summary**

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
MS G-21: Create distinctive places throughout the area.	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> -Look for opportunities for connections along easements & other areas where vehicles not permitted. -Provide benches, streetlights, public art, and other amenities in public areas to attract pedestrian activities. -Encourage new developments to incorporate drought tolerant and native landscaping that is pedestrian friendly, attractive, and consistent with the landscaped character of area. -Encourage all new development to preserve existing mature trees. -Encourage streetscape design programs for commercial frontages that create vibrant places which support walking, bicycling, transit, and sustainable economic development. -Encourage the design and placement of buildings on lots to provide opportunities for natural systems such as solar heating and passive cooling. - Ensure that all new industrial development projects are positive additions to the community setting, provide amenities for the comfort of the employees such as outdoor seating area for breaks or lunch, and have adequate landscape buffers.
MS G-22: Reinvest in existing neighborhoods and promote infill development as a preference over new, greenfield development	GP/ Mobile, Stationary, & Area	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> - Identify all underused properties in the plan area and focus development in these opportunity sites prior to designating new growth areas for development. - Implement programs to retro-fit existing structures to make them more energy-efficient. -Encourage compact development, by placing the desired activity areas in smaller spaces.

Table 17
General Planning Level Mitigation Strategies Summary

Strategy	Source Type ¹	Agency/Organization ²	Description/Comments
Public Safety			
MS G-23: Promote a safe community in which residents can live, work, shop, and play.	GP/ Mobile	Cities/Counties (e.g., Aliso Viejo, Claremont)	<ul style="list-style-type: none"> - Foster an environment of trust by ensuring non-biased policing, and by adopting policies and encouraging collaboration that creates transparency. - Facilitate traffic safety for motorists and pedestrians through proper street design and traffic monitoring.
<p>Note: ¹ Where GP=General Plan. ² List is not meant to be all inclusive. Source: Data compiled by EDAW in 2007</p>			



Appendix C

Rule and Regulation Summary

**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Low Carbon Fuel Standard	10-20 MMT CO ₂ e by 2020	January 1, 2010	ARB	This rule/regulation will require fuel providers (e.g., producers, importers, refiners and blenders) to ensure that the mix of fuels they sell in CA meets the statewide goal to reduce the carbon intensity of CA's transportation fuels by at least 10% by the 2020 target.	ARB Early Action Measure
Reduction of HFC-134a Emissions from Nonprofessional Servicing of Motor Vehicle Air Conditioning Systems	1-2 MMT CO ₂ e by 2020	January 1, 2010	ARB	This rule/regulation will restrict the use of high GWP refrigerants for nonprofessional recharging of leaky automotive air conditioning systems.	ARB Early Action Measure
Landfill Gas Recovery	2-4 MMT CO ₂ e by 2020	January 1, 2010	IWMB, ARB	This rule/regulation will require landfill gas recovery systems on small to medium landfills that do not have them and upgrade the requirements at landfills with existing systems to represent best capture and destruction efficiencies.	ARB Early Action Measure
Vehicle Climate Change Standards (AB 1493 Pavley, Chapter 200, Statutes of 2002)	30 MMT CO ₂ e by 2020	2009	ARB	This rule/regulation will require ARB to achieve the maximum feasible and cost effective reduction of GHG emissions from passenger vehicles and light-duty trucks.	ARB Early Action Measure
Reduction of PFCs from the Semiconductor Industry	0.5 MMT CO ₂ e by 2020	2007-2009	ARB	This rule/regulation will reduce GHG emissions by process improvements/source reduction, alternative chemicals capture and beneficial reuse, and destruction technologies	Underway or to be initiated by CAT members in 2007-2009 period

AB=Assembly Bill; ARB=California Air Resources Board; Calfire=California Fire; CA=California; Caltrans=California Department of Transportation; CAT=California Action Team; CEC=California Energy Commission; CDFA=California Department of Food and Agriculture; CH₄=Methane; CO₂=Carbon Dioxide; CPUC=California Public Utilities Commission; CUFR=California Urban Forestry; DGS=Department of General Services; DWR=Department of Water Resources; GHG=Greenhouse Gas; GWP=Global Warming Potential; IGCC= Integrated Gasification Combined Cycle; IOU= Investor-Owned Utility; IT=Information Technology; IWCB= Integrated Waste Management Board; LNG= Liquefied Natural Gas; MMT CO₂e=Million Metric Tons Carbon Dioxide Equivalent; MW=Megawatts; NA=Not Available; N₂O=Nitrous Oxide; PFC= Perfluorocompound; POU= Publicly Owned Utility; RPS= Renewable Portfolio Standards; RTP=Regional Transportation Plan SB=Senate Bill; SWP=State Water Project; TBD=To Be Determined; UC/CSU=University of California/California State University; ULEV=Ultra Low Emission Vehicle.

**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Restrictions on High GWP Refrigerants	9 MMT CO ₂ e by 2020	2010	ARB	This rule/regulation will expand and enforce the national ban on release of high GWP refrigerants during appliance lifetime.	ARB Early Action Measure
Cement Manufacture	<1 MMT CO ₂ e per year (based on 2004 production levels)	2010	Caltrans	This rule/regulation will allow 2.5% interground limestone concrete mix in cement use.	CAT Early Action Measure
Hydrogen Fuel Standards (SB 76 of 2005)	TBD	By 2008	CDFA	This rule/regulation will develop hydrogen fuel standards for use in combustion systems and fuel cells.	CAT Early Action Measure
Regulation of GHG from Load Serving Entities (SB 1368)	15 MMT CO ₂ e by 2020	May 23, 2007	CEC, CPUC	This rule/regulation will establish a GHG emission performance standard for baseload generation of local publicly owned electric utilities that is no higher than the rate of emissions of GHG for combined-cycle natural gas baseload generation.	CAT Early Action Measure
Energy Efficient Building Standards	TBD	In 2008	CEC	This rule/regulation will update of Title 24 standards.	CAT Early Action Measure
Energy Efficient Appliance Standards	TBD	January 1, 2010	CEC	This rule/regulation will regulate light bulb efficiency	CAT Early Action Measure
Tire Efficiency (Chapter 8.7 Division 15 of the Public Resources Code)	<1 MMT CO ₂ e by 2020	January 1, 2010	CEC & IWMB	This rule/regulation will ensure that replacement tires sold in CA are at least as energy efficient, on average, as tires sold in the state as original equipment on these vehicles.	CAT Early Action Measure
New Solar Homes Partnership	TBD	January 2007	CEC	Under this rule/regulation, approved solar systems will receive incentive funds based on system performance above building standards.	CAT Early Action Measure

**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Water Use Efficiency	1 MMT CO ₂ e by 2020	2010	DWR	This rule/regulation will adopt standards for projects and programs funded through water bonds that would require consideration of water use efficiency in construction and operation.	CAT Early Action Measure
State Water Project	TBD	2010	DWR	This rule/regulation will include feasible and cost effective renewable energy in the SWP's portfolio.	CAT Early Action Measure
Cleaner Energy for Water Supply	TBD	2010	DWR	Under this rule/regulation, energy supply contracts with conventional coal power plants will not be renewed.	CAT Early Action Measure
IOU Energy Efficiency Programs	4 MMT CO ₂ e by 2020	2010	CPUC	This rule/regulation will provide a risk/reward incentive mechanism for utilities to encourage additional investment in energy efficiency; evaluate new technologies and new measures like encouraging compact fluorescent lighting in residential and commercial buildings	CAT Early Action Measure
Solar Generation	TBD	2007–2009	DGS	3 MW of clean solar power generation implemented in CA last year, with another 1 MW coming up. The second round is anticipated to total additional 10 MW and may include UC/CSU campuses and state fairgrounds.	Underway or to be initiated by CAT members in 2007-2009 period

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**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Transportation Efficiency	9 MMT CO ₂ e by 2020	2007–2009	Caltrans	This rule/regulation will reduce congestion, improve travel time in congested corridors, and promote coordinated, integrated land use.	Underway or to be initiated by CAT members in 2007-2009 period
Smart Land Use and Intelligent Transportation	10 MMT CO ₂ e by 2020	2007–2009	Caltrans	This rule/regulation will integrate consideration of GHG reduction measures and energy efficiency factors into RTPs, project development etc.	Underway or to be initiated by CAT members in 2007-2009 period
Cool Automobile Paints	1.2 to 2.0 MMT CO ₂ e by 2020	2009	ARB	Cool paints would reduce the solar heat gain in a vehicle and reduce air conditioning needs.	ARB Early Action Measure
Tire Inflation Program	TBD	2009	ARB	This rule/regulation will require tires to be checked and inflated at regular intervals to improve fuel economy.	ARB Early Action Measure
Electrification of Stationary Agricultural Engines	0.1 MMT CO ₂ e by 2020	2010	ARB	This rule/regulation will provide incentive funding opportunities for replacing diesel engines with electric motors.	ARB Early Action Measure
Desktop Power Management	Reduce energy use by 50%	2007–2009	DGS, ARB	This rule/regulation will provide software to reduce electricity use by desktop computers by up to 40%.	Currently deployed in DGS
Reducing CH ₄ Venting/Leaking from Oil and Gas Systems (EJAC-3/ARB 2-12)	1 MMT CO ₂ e by 2020	2010	ARB	This rule/regulation will reduce fugitive CH ₄ emissions from production, processing, transmission, and distribution of natural gas and oil.	ARB Early Action Measure
Replacement of High GWP Gases Used in Fire Protection Systems with Alternate Chemical (ARB 2-10)	0.1 MMT CO ₂ e by 2020	2011	ARB	This rule/regulation will require the use of lower GWP substances in fire protection systems.	ARB Early Action Measure
Contracting for Environmentally Preferable Products	NA	2007–2009	DGS	New state contracts have been or are being created for more energy and resource efficient IT goods, copiers, low mercury fluorescent lamps, the CA Gold Carpet Standard and office furniture.	Underway or to be initiated by CAT members in 2007-2009 period
Hydrogen Fuel Cells	NA	2007–2009	DGS	This rule/regulation will incorporate clean hydrogen fuel cells in stationary applications	Underway or to be initiated by CAT members in 2007-2009

**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
				at State facilities and as back-up generation for emergency radio services.	period
High Performance Schools	NA	2007–2009	DGS	New guidelines adopted for energy and resource efficient schools; up to \$100 million in bond money for construction of sustainable, high performance schools.	Underway or to be initiated by CAT members in 2007-2009 period
Urban Forestry	1 MMT CO ₂ e by 2020	2007–2009	Calfire, CUFR	This rule/regulation will provide five million additional trees in urban areas by 2020.	Underway or to be initiated by CAT members in 2007-2009 period
Fuels Management/Biomass	3 MMT CO ₂ e by 2020	2007–2009	Calfire	This rule/regulation will provide biomass from forest fuel treatments to existing biomass utilization facilities.	Underway or to be initiated by CAT members in 2007-2009 period
Forest Conservation and Forest Management	10 MMT CO ₂ e by 2020	2007–2009	Calfire, WCB	This rule/regulation will provide opportunities for carbon sequestration in Proposition 84 forest land conservation program to conserve an additional 75,000 acres of forest landscape by 2010.	Underway or to be initiated by CAT members in 2007-2009 period
Afforestation/Reforestation	2 MMT CO ₂ e by 2020	2007–2009	Calfire	This rule/regulation will subsidize tree planting.	Underway or to be initiated by CAT members in 2007-2009 period
Dairy Digesters	TBD	January 1, 2010	CDFA	This rule/regulation will develop a dairy digester protocol to document GHG emission reductions from these facilities.	ARB Early Action Measure

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**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Conservation Tillage and Enteric Fermentation	1 MMT CO ₂ e by 2020	2007–2009	CDFA	This rule/regulation will develop and implement actions to quantify and reduce enteric fermentation emissions from livestock and sequester soil carbon using cover crops and conservation tillage.	Underway or to be initiated by CAT members in 2007-2009 period
ULEV	TBD	2007–2009	DGS	A new long term commercial rental contract was released in March 2007 requiring a minimum ULEV standard for gasoline vehicles and requires alternative fuel and hybrid-electric vehicles.	Underway or to be initiated by CAT members in 2007-2009 period
Flex Fuel Vehicles	370 metric tons CO ₂ , 0.85 metric tons of CH ₄ , and 1.14 metric tons of N ₂ O	2007–2009	DGS	Under this rule/regulation, DGS is replacing 800 vehicles with new, more efficient vehicles.	Underway or to be initiated by CAT members in 2007-2009 period
Climate Registry	TBD	2007–2009	DGS	Benchmarking and reduction of GHG emissions for state owned buildings, leased buildings and light duty vehicles.	Underway or to be initiated by CAT members in 2007-2009 period
Municipal Utilities Electricity Sector Carbon Policy	Included in SB 1368 reductions	2007–2009	CEC, CPUC, ARB	Under this rule/regulation, GHG emissions cap policy guidelines for CA's electricity sector (IOUs and POUs).	Underway or to be initiated by CAT members in 2007-2009 period
Alternative Fuels: Nonpetroleum Fuels	TBD	2007–2009	CEC	State plan to increase the use of alternative fuels for transportation; full fuel cycle assessment.	Underway or to be initiated by CAT members in 2007-2009 period
Zero Waste/High Recycling Strategy	5 MMT CO ₂ e by 2020	2007–2009	IWMB	This rule/regulation will identify materials to focus on to achieve GHG reduction at the lowest possible cost; Builds on the success of 50% Statewide Recycling Goal.	Underway or to be initiated by CAT members in 2007-2009 period
Organic Materials Management	TBD	2007–2009	IWMB	This rule/regulation will develop a market incentive program to increase organics diversion to the agricultural industry.	Underway or to be initiated by CAT members in 2007-2009 period
Landfill Gas Energy	TBD	2007–2009	IWMB	Landfill Gas to Energy & LNG/biofuels	Underway or to be initiated by CAT members in 2007-2009 period

**Table 18
Rule and Regulation Summary**

Rule/Regulation	Reduction	Implementation Date	Agency	Description	Comments
Target Recycling	TBD	2007–2009	IWMB	This rule/regulation will focus on industry/public sectors with high GHG components to implement targeted commodity recycling programs.	Underway or to be initiated by CAT members in 2007-2009 period
Accelerated Renewable Portfolio Standard	Included in SB 1368 reductions	2007–2009	CPUC	This rule/regulation will examine RPS long term planning and address the use of tradable renewable energy credits for RPS compliance.	Underway or to be initiated by CAT members in 2007-2009 period
CA Solar Initiative	1 MMT CO ₂ e by 2020	2007–2009	CPUC	Initiative to deliver 2000 MWs of clean, emissions free energy to the CA grid by 2016.	Underway or to be initiated by CAT members in 2007-2009 period
Carbon Capture and Sequestration	TBD	2007–2009	CPUC	Proposals for power plants with IGCC and/or carbon capture in the next 18 months.	Underway or to be initiated by CAT members in 2007-2009

Source: Data compiled by EDAW in 2007

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EXHIBIT F

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE



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December 21, 2009

Dave Warner
Director of Permit Services
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Ave.
Fresno, CA 93726-0244

Re: District Policy And Guidance Document For Addressing GHG Emission Impacts
under CEQA; Governing Board Meeting on Dec 17, 2009

Dear Mr. Warner:

I am writing concerning the Governing Board's meeting on December 17, 2009 at which the Board approved the District's Policy and Guidance documents for addressing Greenhouse Gas Impacts under the California Environmental Quality Act. We observed during the webcast of the Governing Board's meeting that certain representations were made by the District about our office's position on the policy, including our position in light of additions made to the policy by the District subsequent to the Board's November 5, 2009 meeting. I am writing to make clear that the Attorney General's position on the District's policy and guidance document is reflected in our November 4, 2009 letter (copy attached), and that our position has not changed since then.

Sincerely,

/s/

CLIFFORD L. RECHTSCHAFFEN
Special Assistant Attorney General

For EDMUND G. BROWN JR.
Attorney General

Attachment

Cc: Seyed Sadredin, Executive Director (w/o attachment)

EDMUND G. BROWN JR.
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November 4, 2009

VIA E-MAIL & U.S. MAIL

Dave Warner
Director of Permit Services
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Ave.
Fresno, CA 93726-0244

RE: Final Draft Staff Report on Greenhouse Gas Emissions Under CEQA

Dear Mr. Warner:

We have reviewed the San Joaquin Valley Air Pollution Control District's September 17, 2009, Final Draft Staff Report on "Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act."¹ We appreciate the Air District's extensive efforts and leadership in this area.² We are concerned, however, that the approaches suggested in the Staff Report will not withstand legal scrutiny and may result in significant lost opportunities for the Air District and local governments to require mitigation of greenhouse gas (GHG) emissions.

The Staff Report sets out a proposed threshold of significance for GHG emissions for stationary source projects under the Air District's permitting authority. A threshold of significance is, in effect, a working definition of significance to be applied on a project-by-project basis that can help a lead agency determine which projects normally will be determined to be less than significant, and which normally will be determined to be significant.³ In the context of GHG emissions, the relevant question is whether the project's emissions, when considered in conjunction with the emissions of past, current, and probable future projects, are

¹ The Attorney General submits these comments pursuant to his independent power and duty to protect the natural resources of the State. (See Cal. Const., art. V., § 13; Cal. Gov. Code, §§ 12511, 12600-12612; *D'Amico v. Board of Medical Examiners* (1974) 11 Cal.3d 1, 14-15.)

² The Staff Report states that "[n]o state agency has provided substantial and helpful guidance on how to adequately address GHG emissions under CEQA, nor has there been guidance on how to determine if such impacts are significant." (Report at p. 2.) In fact, there are numerous sources of guidance, including information on the Attorney General's website (<http://ag.ca.gov/globalwarming/ceqa.php>), a Technical Advisory issued by the Governor's Office of Planning and Research (<http://opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>); and the Resources Agency's proposed CEQA Guidelines amendments (<http://ceres.ca.gov/ceqa/guidelines/>), which is accompanied by a detailed, 78-page Initial Statement of Reasons (http://ceres.ca.gov/ceqa/docs/Initial_Statement_of_Reasons.pdf).

³ Cal. Code Regs., tit. 14, § 15064.7, subd. (a).

cumulatively considerable.⁴ Thresholds can be a useful interim tool until cities and counties have in place programmatic approaches, e.g., Climate Action Plans, which allow local government to consider a wide variety of mitigation opportunities and can substantially streamline the CEQA process for individual projects.⁵ Staff's proposed stationary source GHG threshold relies on implementation of GHG emission control technologies. Under this proposal, projects that implement currently unspecified GHG Best Performance Standards ("BPS") would be deemed to not have significant impacts, regardless of the total amount of GHGs emitted.

The Staff Report also recommends a threshold of significance for cities and counties to use in determining whether a development or transportation project's GHG emissions are significant under CEQA. Like the stationary source threshold, this threshold would also rely on performance measures that are not currently identified. BPS for these projects would be any combination of identified GHG reduction measures that reduce project-specific GHG emission by at least 29 percent as compared to "business as usual," as calculated based on a point system to be developed in the future by the Air District.

The Staff Report contains a useful analysis of possible GHG mitigation measures for a variety of stationary sources and for development and transportation projects. This discussion will certainly assist lead agencies and project proponents in considering what mitigation measures currently are available and should be considered. It is not clear to us, however, how much additional analysis the Air District plans to do to support the proposed CEQA thresholds of significance recommended in the Staff Report. A public agency proposing to adopt a CEQA threshold of significance should be able to answer at least the following questions about its proposed approach:

What defined, relevant environmental objective is the threshold designed to meet, and what evidence supports selection of that objective?

The Staff Report does not discuss a particular environmental objective that would be achieved by implementing the proposed thresholds, such as meeting a GHG emissions reduction trajectory consistent with that set forth in AB 32 and Executive Order S-03-05 within the Air District's jurisdiction.⁶ It appears that the Air District has not yet determined what amount of

⁴ Cal. Code Regs., tit. 14, § 15064, subd. (h)(1); see also Initial Statement of Reasons at p. 17 ("Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis.")

⁵ See Proposed Cal. Code Regs., tit. 14, § 15183.5, subd. (b) (describing tiering and streamlining available under "Plans for the Reduction of Greenhouse Gas Emissions"), available at

http://ceres.ca.gov/ceqa/docs/FINAL_Text_of_Proposed_Amendments.pdf; Draft Initial Statement of Reasons (discussing proposed § 15183.5), available at

http://ceres.ca.gov/ceqa/docs/Initial_Statement_of_Reasons.pdf#page=56; see also See Attorney General's General Plan/CEQA Frequently Asked Questions, available at http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf.

⁶ Pursuant to these mandates, California is committed to reducing GHG emissions to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. These objectives are consistent with the underlying environmental objective of stabilizing atmospheric concentrations of greenhouse gases at a level that will substantially reduce the risk of dangerous climate change. (See AB 32 Scoping Plan at p. 4 ["The 2020 goal was established to be an aggressive,

GHG reduction it is aiming to achieve. Setting a relevant environmental objective is an essential step in establishing any legally defensible threshold of significance; without it, there is nothing against which to gauge the success of the threshold in operation.

What is the evidence that adopting the threshold will meet this objective?

Because the BPS discussed in the Staff Report are described as “illustrative” only, it is not possible at this time to determine whether the BPS ultimately adopted will reduce GHG emissions in the San Joaquin Valley and, if so, by how much. There is no stated commitment to tie BPS proposed in the future to regional GHG reduction objectives.

How does the threshold take into account the presumptive need for new development to be more GHG-efficient than existing development?

The Staff Report seems to assume that if new development projects reduce emissions by 29 percent compared to “business as usual,” the 2020 statewide target of 29 percent below “business as usual” will also be achieved, but it does not supply evidence of this. Indeed, it seems that new development must be more GHG-efficient than this average, given that past and current sources of emissions, which are substantially less efficient than this average, will continue to exist and emit.⁷

Will the threshold routinely require new projects to consider mitigation beyond what is already required by law?

Because “business as usual” for a development project is defined by the Staff Report as what was typically done in similar projects in the 2002-2004 timeframe, and requirements affecting GHG emissions have advanced substantially since that date, it appears that the Air District’s proposal would award emission reduction “points” for undertaking mitigation measures that are already required by local or state law.⁸

Similarly, we are concerned that project proponents could “game” the system. Under the current proposal, each project will be considered against a hypothetical project that could have been built on the site in the 2002-2004 time period. It is not clear why the project should be compared against a hypothetical project if that hypothetical project could not legally be built

but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate.”)]

⁷ We note that CAPCOA expressly found that an approach that would rely on 28 to 33 percent reductions from BAU would have a “low” GHG emissions reduction effectiveness. CAPCOA, CEQA and Climate Change (Jan. 2008) at p. 56, available at <http://www.capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf>.

⁸ To take one important example, Title 24 has undergone two updates since 2002-2004 – in 2005 and 2008. The 2008 Title 24 standards are approximately 15 percent more stringent than the 2005 version. In addition, a significant number of local governments have adopted green building ordinances that go beyond Title 24 in just the past few years, and many more are considering adopting such ordinances as part of their Climate Action Plans. See http://ag.ca.gov/globalwarming/pdf/green_building.pdf.

today,⁹ and the approach would appear to offer an incentive to project proponents to artificially inflate the hypothetical project to show that the proposed project is, by comparison, GHG-efficient.¹⁰

Will operation of the threshold allow projects with large total GHG emissions to avoid environmental review? What evidence supports such a result?

It appears that any project employing certain, as of yet unidentified, mitigation measures would be considered to not be significant, regardless of the project's total GHG emissions, which could be very large. For instance, under the Air District's proposal, it would appear that even a new development on the scale of a small city would be considered to not have a significant GHG impact and would not have to undertake further mitigation, provided it employs the specified energy efficiency and transportation measures. This would be true even if the new development emitted hundreds of thousands of tons of GHG each year, and even though other feasible measures might exist to reduce those impacts.¹¹ The Staff Report has not supplied scientific or quantitative support for the conclusion that such a large-emitting project, even if it earned 29 "points," would not have a significant effect on the environment.

Will the threshold benefit lead agencies in their determinations of significance?

For the reasons set forth above, we fear that the recommended approach in its current form may unnecessarily subject lead agencies that follow them to CEQA litigation. This would be detrimental not only to the lead agencies, but to the many project proponents who may face unnecessary delay and legal uncertainty.¹²

⁹ The appropriate baseline under CEQA is not a hypothetical future project, but rather existing physical conditions. (Cal. Code Regs., tit. 14, § 15126.2, subd. (a).)

¹⁰ A detailed analysis of the proposed amendments to Rule 2301 (emissions reduction credit banking) is beyond the scope of this letter. It is important, however, that any such plan comply with CEQA's requirements for additionality. As the most recent draft of the proposed CEQA Guidelines notes, only "[r]eductions in emissions that are not otherwise required may constitute mitigation pursuant to this subdivision." Proposed Cal. Code Regs., tit. 14, § 15126.4, subd. (c), available at http://ceres.ca.gov/ceqa/docs/Text_of_Proposed_Changes.pdf.

¹¹ In the advance of a programmatic approach to addressing GHG emissions, lead agencies must examine even GHG-efficient projects with some scrutiny where total emissions are large. Once a programmatic approach is in place, the lead agency will be able to determine whether even a larger-emitting project is, or is not, consistent with the lead agency's overall strategy for reducing GHG emissions. If it is, the lead agency may be able to determine that its incremental contribution to climate change is not cumulatively considerable.

¹² The Staff Report states that "[l]ocal land-use agencies are facing increasing difficulties in addressing GHG emissions in their efforts to comply with CEQA." (Report at p. 2.) We strongly believe that this experience is not universal. In fact, many cities and counties are actively taking up their role as "essential partners" in addressing climate change (see AB 32 Scoping Plan at p. 26) by making commitments to develop local Climate Action Plans.

Mr. Dave Warner
November 4, 2009
Page 5

We support staff's continued work in this area. However, before formally endorsing or adopting any particular threshold, we recommend that the Air District consider the issues that we have raised in this letter; if warranted, evaluate the approaches currently under consideration by other districts; and, if possible, work with those districts to devise approaches that are complementary and serve CEQA's objectives.

Sincerely,

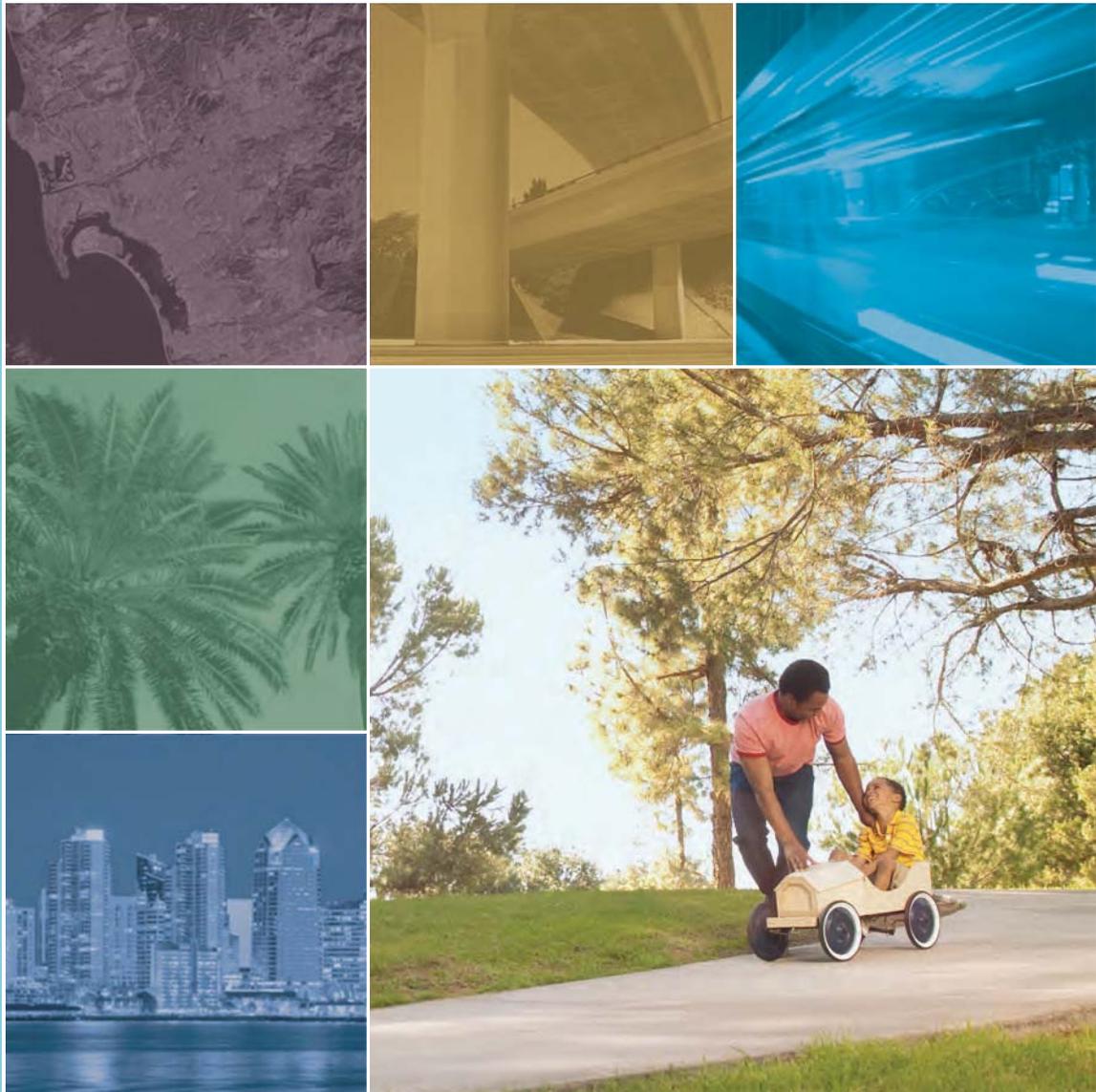
/ s /

TIMOTHY E. SULLIVAN
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

EXHIBIT G

Our Region. Our Future.



2050 Regional Transportation Plan



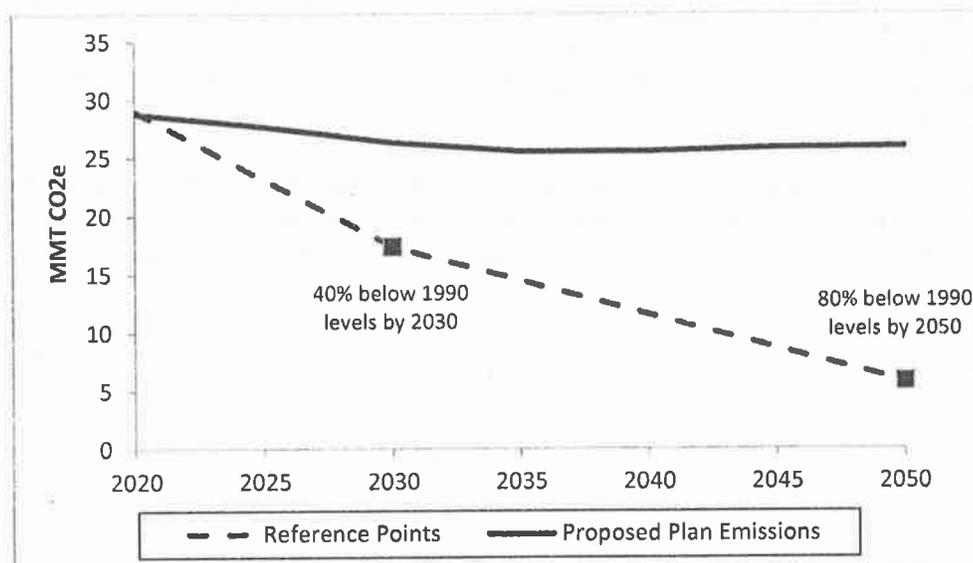
GHG-4 BE INCONSISTENT WITH THE STATE’S ABILITY TO ACHIEVE THE EXECUTIVE ORDER B-30-15 AND S-3-05 GOALS OF REDUCING CALIFORNIA’S GHG EMISSIONS TO 40 PERCENT BELOW 1990 LEVELS BY 2030 AND 80 PERCENT BELOW 1990 LEVELS BY 2050

ANALYSIS METHODOLOGY

The analysis evaluates whether the proposed Plan is inconsistent with the State’s ability to achieve the Executive Order S-3-05 goal of reducing California’s GHG emissions to 80 percent below 1990 levels by 2050. The analysis also evaluates whether the proposed Plan is inconsistent with the State’s ability to achieve the Executive Order B-30-15 goal of reducing California’s GHG emissions to 40 percent below 1990 levels by 2030.

The Executive Order S-3-05 goal of reducing California’s GHG emissions to 1990 levels by 2020 was adopted in AB 32, and is evaluated in Impact GHG-2. Therefore, this analysis focuses on whether the region would achieve the 2050 goal. 2035 is also addressed in Impact GHG-4 as an interim year using the Executive Order B-30-15 goal of reducing California’s GHG emissions to 40 percent below 1990 levels by 2030.

To perform this analysis, SANDAG identified estimated 2035 and 2050 emissions reduction reference points for the region. Note that there is no requirement that the SANDAG region’s emissions be reduced by the same percentage (“equal share”) as the statewide percentage in order for the State to achieve the Executive Order’s goal. The proposed Plan’s impacts nevertheless are considered significant if total emissions in the San Diego region exceed the estimated 2035 or 2050 GHG reduction reference points. A graph comparing regional emissions projected in the proposed Plan versus the Executive Order-based reference points is provided as Figure 4.8-1.



Source: Appendix G-1 to the EIR.

Figure 4.8-1. Regional GHG Reductions Required to Meet Executive Order Reference Points for 2035 and 2050 vs. Proposed Plan Emissions

SANDAG identified the 2050 reference point by applying an 80 percent reduction to the San Diego region's 1990 emissions level. The 40 percent reduction was applied to the region's 1990 emissions level to identify a 2030 reference point, which was then used to develop a 2035 reference point by using a straight line trajectory from the 2030 goal to the 2050 goal.

As described in Impact GHG-2, the San Diego region's 1990 GHG emissions totaled 29 MMT CO₂e (see Appendix G-1 to the EIR). By applying the methodology described above, the 2035 reference point was identified as 14.5 MMT CO₂e, and the 2050 reference point was identified as 5.8 MMT CO₂e.

For the purpose of evaluating impacts under Impact GHG-4, because the Executive Order goals include both regional growth and land use change and the transportation network, the analysis has not been separated into the two categories. The impact assessment includes both regional growth and land use change and the transportation network. Emission calculations are provided in Appendix G-1.

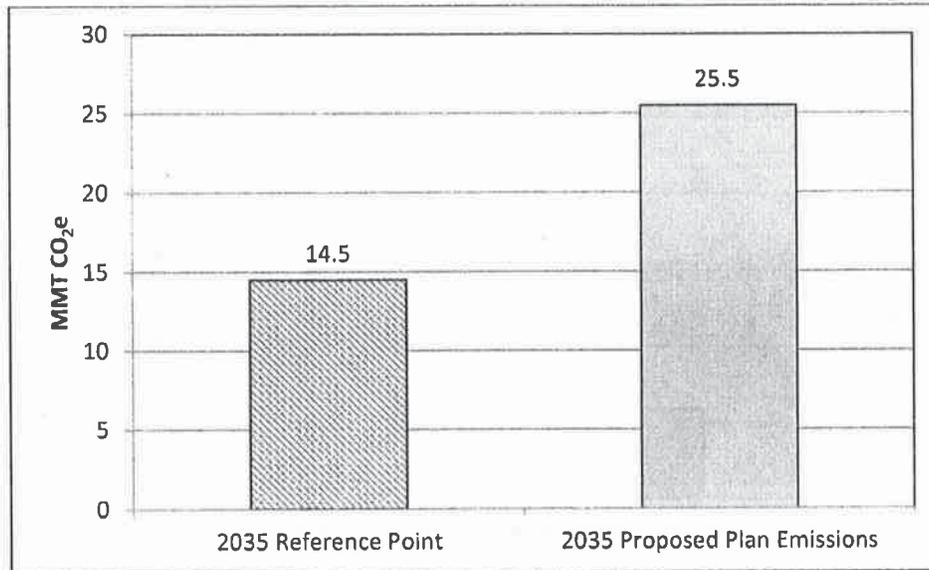
During the timeframe of the proposed Plan, climate change effects that are likely to exacerbate the proposed Plan's greenhouse gas emissions impacts include but are not limited to increases in temperatures and frequency, duration, and intensity of heatwaves (which could lead to increases in GHG emissions from local fossil fuel-fired power plants to meet electricity demands); and wildfires (which release GHG emissions of criteria pollutants). In general, these climate change effects would increase between 2020 and 2050. Climate change effects are discussed in more detail in Appendix F.

2035

Regional Growth and Land Use Change and Transportation Network Improvements and Programs

As discussed under Impact GHG-1, under implementation of the proposed Plan, total GHG emissions for the San Diego region in 2035 are projected to be approximately 25.5 MMT CO₂e, or 28 percent lower than GHG emissions in 2012 (Table 4.8-7). To be in line with its "equal share" of the state emissions reduction goals set forth in Executive Orders S-3-05 and B-30-15, regional GHG emissions would need to decrease to 14.5 MMT CO₂e by 2035.

Figure 4.8-1 shows a projection of "equal share" reductions for the San Diego region, compared to estimated proposed Plan emissions. In addition, Figure 4.8-2 compares the Executive Order-based 2035 reference point for the region with projected GHG emission under the proposed Plan. This is a significant impact.



Source: Appendix G-1 to the EIR

Figure 4.8-2. 2035 GHG Emissions Reference Point vs. Proposed Plan Emissions

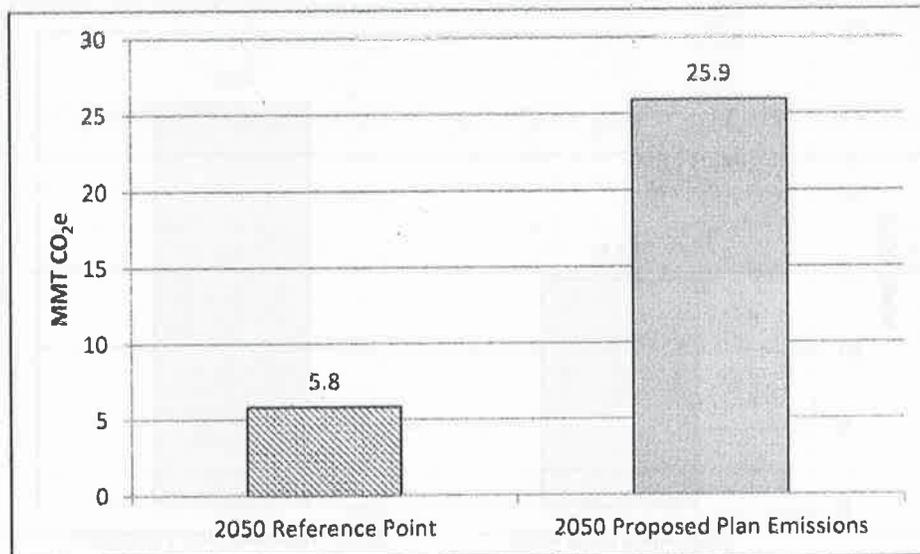
2035 Conclusion

Because the total emissions in the San Diego region of 25.5 MMT CO₂e in 2035 would exceed the regional 2035 GHG reduction reference point of 14.5 MMT CO₂e (which is based on EO-B-30-15 and EO-S-3-05), the proposed Plan's 2035 GHG emissions would be inconsistent with state's ability to achieve the Executive Orders' GHG reduction goals. Therefore, this impact (GHG-4) in the year 2035 is significant.

2050

Regional Growth and Land Use Change and Transportation Network Improvements and Programs

As discussed under Impact GHG-1, under implementation of the proposed Plan, total GHG emissions for the San Diego region in 2050 are projected to be 25.9 MMT CO₂e, or 26.8 percent lower than GHG emissions in 2012 (Table 4.8-8). To be in line with its "equal share" of the state 2050 emissions reduction goal set forth in Executive Order S-3-05, regional GHG emissions would need to decrease to 5.8 MMT CO₂e in 2050. Figure 4.8-1 shows a projection of "equal share" reductions for the San Diego region, compared to estimated proposed Plan emissions. In addition, Figure 4.8-3 compares the Executive Order based reference point for the region for 2050 with projected GHG emission under the proposed Plan. This is a significant impact



Source: Appendix G-1 to the EIR

Figure 4.8-3. 2050 GHG Emissions Reference Point vs. Proposed Plan Emissions

2050 Conclusion

Because the total emissions in the San Diego region of 25.9 MMT CO₂e in 2035 would exceed the regional 2035 GHG reduction reference point of 5.8 MMT CO₂e (which is based on EO-S-3-05), the proposed Plan's 2050 GHG emissions would be inconsistent with state's ability to achieve the Executive Order's GHG reduction goals. Therefore, this impact (GHG-4) in the year 2050 is significant.

MITIGATION MEASURES

GHG-4 Inconsistency with State Agency 2030 and 2050 GHG Reduction Goals

2035 and 2050

Basis for Selection of GHG Mitigation Measures

Overview. Many features currently included in the proposed Plan (e.g., the SCS, increased transit and active transportation investments) have the effect of reducing GHG emissions that might otherwise occur. Mitigation measures presented in this section are additional feasible GHG reduction measures not included in the proposed Plan that SANDAG would or other agencies could implement. Presented below are three types of feasible GHG reduction mitigation measures:

- Plan- and policy-level mitigation measures SANDAG has committed to implement;
- Mitigation measures for transportation network improvements and programs, which SANDAG has committed to implement for its projects and which other transportation project sponsors can and should implement for their projects and
- Mitigation measures for development projects implementing regional growth and land use changes, which local jurisdictions can and should implement.

EXHIBIT H



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CONDITIONS OF APPROVAL FOR SP00375

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10. EVERY 001
GENERAL
CONDITIONS

SP - Hold Harmless

Status: Conditions:
INEFFECT [Informational](#)

The applicant/permittee or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside or its agents, officers, and employees (COUNTY) from the following:

(a) any claim, action, or proceeding against the COUNTY to attack, set aside, void, or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning the SPECIFIC PLAN and,

(b) any claim, action or proceeding against the COUNTY to attack, set aside, void or annul any other decision made by the COUNTY concerning the SPECIFIC PLAN including, but not limited to, decisions made in response to California Public Records Act requests.

The COUNTY shall promptly notify the applicant/permittee of any such claim, action, or proceeding and shall cooperate fully in the defense. If the COUNTY fails to promptly notify the applicant/permittee of any such claim, action, or proceeding or fails to cooperate fully in the defense, the applicant/permittee shall not, thereafter, be responsible to defend, indemnify or hold harmless the COUNTY.

The obligations imposed by this condition include, but are not limited to, the following: the applicant/permittee shall pay all legal services expenses the COUNTY incurs in connection with any such claim, action or proceeding, whether it incurs such expenses directly, whether it is ordered by a court to pay such expenses, or whether it incurs such expenses by providing legal services through its Office of County Counsel.

10. EVERY 002
GENERAL
CONDITIONS

SP - Definitions

Status: Conditions:
INEFFECT [Informational](#)

The words identified in the following list that appear in all capitals in the attached conditions of Specific Plan No.375 shall be henceforth defined as follows:

SPECIFIC PLAN = Specific Plan No. 375

CHANGE OF ZONE = Change of Zone No. 7623.

GPA = Comprehensive General Plan Amendment No. 910.

EIR = Environmental Impact Report No. 514.

DISTRICT or DISTRICTS = A SPECIFIC PLAN'S Planning Cluster of Planning Areas as specified in the SPECIFIC PLAN, a large planning area. The intent of the DISTRICT is to break down a very large Specific Plan into manageable sections or pieces. Each DISTRICT should be about the size of a traditional Specific Plan.

DISTRICT REFINEMENT PLAN or DRP = a substantial conformance to the SPECIFIC PLAN intended to become a Design Guideline Document, submitted separately for each DISTRICT within the SPECIFIC PLAN. The DISTRICT REFINEMENT PLAN may address features that are specific to an individual DISTRICT and may not affect the entire SPECIFIC PLAN.

TOTAL DWELLING UNIT TRACKING MATRIX = A chart for purposes of tracking the total build out of the SPECIFIC PLAN maintained by TLMA Counter Services Divison. The matrix shall differentiate between individual building permits and the total number of dwelling units that are represented by the building permits that have been issued for the entire Specific Plan.

BUILDING PERMITS = the number of dwelling units constructed within an implementing project. Any condition of approval that uses the term "building permit" to trigger an event or to cause another action to take place shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

CLIMATE ACTION PLAN or CAP = a section of the SPECIFIC PLAN that outlines standards, suggestions, and guidance intended to reduce Greenhouse Gases.

10. EVERY 003

GENERAL SP - SP Document
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Specific Plan No. 375 shall include the following:

a. Specific Plan Document, which shall include:

1. Board of Supervisors Specific Plan Resolution including the Mitigation Reporting/Monitoring Program 2. Conditions of Approval. 3. Specific Plan Zoning Ordinance. 4. Land Use Plan in both 8 1/2" x 11" black-and-white and 11" x 17" color formats. 5. Specific Plan text. 6. Descriptions of each DISTRICT in both graphical and narrative formats.

b. Final Environmental Impact Report No. 514 Document, which must include, but not be limited to, the following items:

1. Mitigation Monitoring/Reporting Program. 2. Draft EIR 3. Comments received on the Draft EIR either verbatim or in summary. 4. A list of person, organizations and public agencies commenting on the Draft EIR. 5. Responses of the County to significant environmental points raised in the review and consultation process. 6. Technical Appendices on CD.

If any specific plan conditions of approval differ from the specific plan text or exhibits, the specific plan conditions of approval shall take precedence.

10. EVERY 004
GENERAL

SP - Ordinance Requirements

Status: Conditions:
INEFFECT [Informational](#)

stated in the Transportation Department Conditions. Said Alternate or Secondary Access(s) shall have concurrence and approval of both the Transportation and Fire Departments and shall be maintained through out any phasing.

10.FIRE 002
GENERAL SP-#86-WATER MAINS Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

All water mains and fire hydrants providing required fire flows shall be constructed in accordance with the appropriate sections of Riverside County Ordinance 460 and/or No.787, subject to the approval by the Riverside County Fire Department.

10.FIRE 003
GENERAL SP-#101-DISCL/FLAG LOT Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

1) FLAG LOTS WILL NOT BE PERMITTED BY THE FIRE DEPARTMENT.

) This project lies within the VERY HIGH FIRE HAZARD SEVERITY ZONE.

3) A fire fuel analysis of the open space/wildlands within and outside the project area may be required prior to submitting a fuel modification plan.

NOTICE: The transferor of real property shall disclose to the transferee that this project lies within a VERY HIGH FIRE HAZARD area.

10.FIRE 004
GENERAL SP-#71-ADVERSE IMPACTS Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

The proposed project will have a cumulative adverse impact on the Fire Department's ability to provide an acceptable level of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures and population. The project proponents/developers shall participate in the development Impact fee program as adopted by the Riverside County Board of Supervisors to mitigate a portion of these impacts. This will provide funding for capitol improvements such as land/equipment purchases and fire station construction. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional integrated fire protection response system.

10.FIRE 005
GENERAL SP-#100-FIRE STATION Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

Based on the adopted Riverside County Fire Protection Master Plan, one new fire station and/or engine company could be required for every 2,000 new dwelling units, and/ or 3.5 million square feet of commercial/industrial occupancy. Given the project's proposed development plan, up to 6 fire station(s) MAY be needed to meet anticipated service demands. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional intergrated fire protection response system.

10.PLANNING 017 SP - PDP01341 Status: Conditions:

GENERAL
CONDITIONS

INEFFECT [Informational](#)

County Paleontological Report (PDP) No. 1341, submitted for this case (SP00375), was prepared by Paleo Environmental Associates, Inc. and is entitled: "Paleontological Resources Inventory and Impact Assessment Technical Report prepared in support of Travertine Point Specific Plan, Vicinity of Salton Sea, Riverside County, California", dated December 2008.

PDP01341 concluded:

- 1.The project plan area is underlain by paleontologically highly sensitive strata.
- 2.Earthmoving activities associated with development of the plan area would have a high potential for encountering fossil remains.
- 3.Paleontological resources might be adversely affected by the earth-moving activities associated with the development of the Travertine Point Specific Plan.
- 4.Paleontological resources impact mitigation is warranted.

PDP01341 recommended:

- 1.Paleontological construction monitoring and fossil/sample recovery.
- 2.Paleontological Resource Impact Mitigation Program design criteria are discussed in this report.
- 3.The level and type of mitigation effort in a particular part of the plan area reflects the paleontologic or scientific importance and the corresponding impact sensitivity.

PDP01341 satisfies the requirement for a Paleontological Study for Planning/CEQA purposes. PDP01341 is hereby accepted for SP00375. A project specific Paleontological Resource Impact Mitigation Program (PRIMP) shall be prepared and submitted to the County Geologist for review and approval prior to issuance of any grading permit for each implementing project under this Specific Plan.

10.PLANNING 018

GENERAL
CONDITIONS

SP - GEO02091

Status: Conditions:
INEFFECT [Informational](#)

County Geologic Report (GEO) No. 2091, submitted for this project (SP00375) was prepared by Sladden Engineering and is entitled: "Geotechnical Investigation, Proposed Master Planned Community, Rivera-Travertine Properties, South of 81st Avenue Along Highway 86, Oasis Area of Riverside County, California, Project No. 544-06699", dated November 30, 2006. In addition, Sladden prepared the following documents:

"Response to County of Riverside Review comments dated October 30, 2008: County Geologic Report No. 2091", dated May 24, 2009.

"Response to County of Riverside Review comments dated November 12, 2009: County Geologic Report No. 2091; Review Comments #2", dated December 16, 2009

These documents are herein incorporated as a part of GEO02091.

GEO02091 concluded:

- 1.The subject site is located in an area of seismic activity and will likely experience intense seismic shaking during the design life of the proposed project.
- 2.No known faults have been mapped trending through the site.
- 3.Risks associated with surface fault rupture should be considered low.
- 4.The low calculated factors of safety for some of the granular layers and non-plastic silt deposits suggest that the layers may exhibit liquefaction behavior for the design level earthquake ground shaking considered.
- 5.The maximum total liquefaction-induced ground settlement at the site could be up to 3 inches during the postulated earthquake. The differential settlement resulting from liquefaction should be less than 1.5 inches.
- 6.The subject parcels are located on relatively level ground and are not situated immediately adjacent to any mountains or hillsides. As such, the subject parcels are not susceptible to any forms of slope instability.
- 7.Seiches should be considered a potential hazard to the site.
- 8.Risks associated with flooding and erosion may need to be considered.

GEO02091 recommended:

- 1.Remedial grading for building areas to result in the construction of a uniform compacted soil mat beneath all structures.
- 2.Post-tensioned slabs are recommended to mitigate surficial ground movement related to liquefaction.
- 3.Mitigation of seiche potential through the use of earthen levees, dykes, or similar water retaining structures.

GEO02091 satisfies the requirement for a Geologic Study for Planning / CEQA purposes. GEO No. 2091 is hereby accepted for Planning purposes for this Specific Plan. This approval is not intended, and should not be misconstrued as approval for any future entitlement project or grading permit. Engineering and other building code parameters will be reviewed and additional comments and/or conditions may be imposed by the Building and Safety Department upon

application for grading and/or building permits.

A geologic investigation report will be required for all implementing projects (Tract Map, Plot Plan, etc.) as described elsewhere in this conditions set.

10.PLANNING 019
GENERAL SP - MANTN AREAS,PHASES&DIST Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

All planning area's, phase numbers, and DISTRICT numbers shall be maintained throughout the life of the SPECIFIC PLAN, unless changed through the approval of a specific plan amendment or specific plan substantial conformance accompanied by a revision to the complete SPECIFIC PLAN document.

10.PLANNING 020
GENERAL SP - NO P.A. DENSITY TRANSPER Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

Density transfers between Planning Areas within the SPECIFIC PLAN shall not be permitted, except through the Specific Plan Amendment process.

In this SPECIFIC PLAN, each Planning Area (PA) has a "Target" unit count. Each PA also has a Land Use Designation Range. The Target unit count is an estimate used to create a total dwelling unit number for the entire SPECIFIC PLAN. However, the target for each PA does not limit the number of dwelling units in a PA. A PA is permitted to build over or under the Target density so long as the PA total unit count does not exceed the top or bottom of its Land Use Designation range. In no case shall the SPECIFIC PLAN maximum total permitted residential dwelling units (16,655) be exceeded.

10.PLANNING 022
GENERAL SP - LC LANDSCAPING PLANS Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

All landscaping plans shall be prepared in accordance with Ordinance No. 859 (as adopted and any amendments thereto), the Riverside County Guide to California Landscaping, and Ordinance No. 348, Section 18.12. In the event conflict arises between Ordinance No. 859 and the SPECIFIC PLAN, then the requirements of Ordinance No. 859 shall prevail.

10.PLANNING 023
GENERAL SP - MITIG MEASURE 6.2-2 Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

Mitigation Measure 6.2-2 from EIR514 requires:

Prior to building final inspection, applicant shall provide for the purchasers of residential, commercial, and industrial units in planning areas that would be located adjacent to active agricultural land (either active agricultural land within the project site or adjacent to the project site's boundaries) to be notified pursuant to either the Right To Farm notice for Riverside County (Ordinance No.460) and/or Imperial County (Right-to-Farm Ordinance) as appropriate.

10.PLANNING 024
GENERAL SP - MITIG MEASURE 6.3-19 Status: Conditions:
CONDITIONS INEFFECT [Informational](#)

Mitigation Measure 6.3-19 from EIR514 requires:

Prior to issuance of the wastewater treatment facility building final permits for each tract map, the wastewater treatment facility shall enclose odor-generating processes and utilize other odor-abatement technologies as required under state and local regulations.

10.PLANNING 025

GENERAL SP - MITIG MEASURE 6.3-18
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.3-18 from EIR514 requires:

Prior to issuance of the wastewater treatment facility building final permits for each tract map, the wastewater treatment facility shall develop a protocol for handling odor complaints.

10.PLANNING 026

GENERAL SP - MITIG MEASURE 6.5-7
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Mitigation Measure 6.5-7 from EIR514 (as revised by the RRDEIR) requires:

If human remains are encountered during a public or private construction (earthmoving) activity, State Health and Safety Code 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Riverside County Coroner must be notified within 24 hours. If the coroner determines that the burial is not historic, but prehistoric, the Native American Heritage Commission (NAHC) must be contacted to determine the most likely descendent (MLD) for this area. The MLD may become involved with the disposition of the burial following scientific analysis. Upon clearance by the coroner and the NAHC for Native American remains, construction(earthmoving) activities may resume."

10.PLANNING 027

GENERAL SP - MITIG MEASURE 6.5-5
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.5-5 from EIR514 requires:

If avoidance and/or preservation in place of cultural resources is not possible, the following mitigation measures shall be initiated for each impacted site:

(1) A participant-observer from the appropriate Indian Band or Tribe shall be used during archaeological testing or excavation in the project site.

(2) Prior to grading final, the project applicant shall develop a test level research design detailing how the cultural resource investigation shall be executed and providing specific research questions that shall be addressed through the excavation program. In particular, the testing program shall characterize the site constituents, horizontal and vertical extent, and, if possible,

period of use. The testing program shall also address the California Register and National Register eligibility of the cultural resource and make recommendations as to the suitability of the resource for listing on either register. The research design shall be submitted to the County of Riverside Regional Park and Open-Space District or the County or Imperial Planning Department, as appropriate, for review and comment. For sites determined through the testing program to be ineligible for listing on either the California or National Register, execution of the testing program will suffice as mitigation of project impacts to this resource.

(3) Prior to the issuance of a grading permit issuance for each implementing project, and after approval of the research design, the project applicant shall complete the excavation program as specified in the research design. The results of this excavation program shall be presented in a technical report that follows the County of Riverside outline for Archaeological Testing. The Test Level Report shall be submitted to the County of Riverside Regional Park and Open-Space District or the County of Imperial Planning Department, for review and comment. If cultural resources that would be affected by the project are found ineligible for listing on the California or National Register, test level investigations will have depleted the scientific value of the sites and the project can proceed.

(4) If the resource is identified as being potentially eligible for either the California or National Register, and project designs cannot be altered to avoid impacting the site, a Treatment Program to mitigate project effects shall be initiated. A Treatment Plan detailing the objectives of the Treatment Program shall be developed. The Treatment Plan shall contain specific, testable hypotheses relative to the sites under study and shall attempt to address the potential of the sites to address these research questions. The Treatment Plan shall be submitted to the County of Riverside Regional Park and Open-Space District or Imperial Planning Department, as appropriate, for review and comment.

(5) After approval of the Treatment Plan, the Treatment Program for affected, eligible sites shall be initiated. A Treatment Program typically involves excavation of a statistically representative sample of the site to preserve those resource values that qualify the site as being eligible for the California or National Register. At the conclusion of the excavation or research program, a Treatment Report, following the outline of the County of Riverside for Archaeological Mitigation or Data Recovery, shall be developed. This data recovery report shall be submitted to the County of Riverside Regional Park and Open-Space District or Imperial Planning Department, as appropriate, for review and comment.

10.PLANNING 028

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.5-4

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.5-4 from EIR514 requires:

Consultation and in conjunction with the Torres-Martinez Desert Cahuilla Indians is recommended to ascertain if Phase II Testing and Evaluation is warranted for CA-IMP-33 to assess the site's content, depth, and integrity for cultural deposits, as well as data removal. It is also recommended that the modern graffiti be carefully removed from Travertine Rock in its entirety, with special care not to damage the prehistoric rock art. It is also recommended that aesthetically pleasing and protective fencing be placed around Travertine Rock. And finally,

Travertine Rock should be formally nominated as a Traditional Cultural Property (TCP).

10.PLANNING 029

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.5-2

Status: Conditions:
INEFFECT Informational

Mitigation Measure 6.5-2 from EIR514 requires:

The following standard policies and policy implementation measures shall be implemented prior to implementing project approval:

Cultural Resources Policy 1

Prior to grading final for each implementing project, a comprehensive survey program for unsurveyed areas within the project area shall be completed to identify, document, and protect, if feasible, prehistoric and historical archaeological sites, and sites containing Native American human remains.

Implementation Measure 1.1 The proposed project would be covered under the State CEQA Guidelines (California 2005) or Section 106 of the NHPA, and shall be surveyed by a professional who meets the Secretary of the Interior's Standards and Guidelines regarding archaeological activities and methods prior to the County's approval of proposed project plans and prior to grading final (48 CFR 44716-44742).

Implementation Measure 1.2 All archaeological site location data collected during the cultural resources surveys must be considered to be of a sensitive nature and must remain confidential. Caution must be exercised when disseminating this information; in particular, maps and site location data should be made available only to managers, County officials, and other professionals who have a legitimate need to know.

Implementation Measure 1.3 For potentially significant prehistoric archaeological resources or sites containing Native American human remains identified during the project's archaeological surveys, the project proponent, Federated Insurance Company or their designee, shall continue consultation with the NAHC in Sacramento and interested Native American individuals and organizations.

Cultural Resources Policy 2

Avoid impacts to potentially significant prehistoric and historical archaeological resources and sites containing Native American human remains, where feasible.

Implementation Measure 2.1 If cultural resources avoidance is feasible, potentially significant archaeological resources and sites containing Native American human remains shall be placed within permanent project-specific conservation easements or dedicated open space areas prior to grading final.

Implementation Measure 2.2 Where avoidance of archaeological resources and sites containing Native American human remains is not a feasible management option, capping these resources

with sterile sediments and avoidance planting (e.g., planting of cactus, mesquite, or other native plants) shall be considered the next most favorable management option. In doing so, capping the resource(s) will ensure that indirect impacts from increased public availability to these sites are avoided. Plans for capping identified cultural resources shall be submitted to and approved by the County prior to map recordation.

Cultural Resources Policy 3

Reduce adverse impacts to significant archaeological resources that cannot be protected in place through data recovery excavations.

Implementation Measure 3.1 If avoidance and/or preservation in place of known prehistoric and historical archaeological resources is not a feasible management option, the project proponent shall ensure that potentially significant archaeological resource(s) and site(s) shall be investigated pursuant to the standards, guidelines, and principles of the Advisory Council's Treatment of Archaeological Properties: A Handbook (ACHP 1980).

Prior to grading final for each implementing project, the project applicant shall retain a qualified archaeologist who meets the Secretary of Interior's Standards and Guidelines, and shall use the project's Research Design detailed in the Phase I Cultural Resources Survey Report for the Travertine Point Specific Plan (Applied EarthWorks 2008) to guide the implementation of a Phase II Testing and Evaluation Program. In general terms, the Phase II Testing and Evaluation Program shall be designed to further define site boundaries and to assess the structure, content, nature, and depth of subsurface cultural deposits and features. Emphasis shall also be placed on assessing site integrity and the site's potential to address regional archaeological research questions. These data shall then be used to address the NRHP/CRHR eligibility requirements for the archaeological resource and make recommendations as to the suitability of the resource for listing on either the NRHP/CRHR.

Prior to grading final for each implementing project and after approval of the project's various cultural resources survey reports by the County, the project applicant shall retain a qualified archaeologist to complete the Phase II Testing and Evaluation Program as specified in the project's Phase II Testing and Evaluation Proposal and Research Design and prior to the issuance of a project grading permit. The results of this Phase II Testing Program shall be presented in a technical report that follows the State of California Office of Historic Preservation Archaeological Resource Management Report Recommended Contents and Format Guidelines (California 1990). The Phase II Report shall be submitted to the County's Planning Department for review and comment and the Torres-Martinez Desert Cahuilla Indians prior to the issuance of a project grading permit. If the resource is determined to be ineligible for listing on the NRHP or CRHR upon completion of the Phase II Testing Program, no further cultural resources management of this resource would be required.

Implementation Measure 3.2 A participant-observer(s) from the Torres-Martinez Desert Cahuilla Indians shall be present during Phase II archaeological excavations involving all sites of Native American concern.

Implementation Measure 3.2 A participant-observer(s) from the Torres-Martinez Desert Cahuilla Indians shall be present during Phase II archaeological excavations involving all sites of Native American concern. Implementation Measure 3.3?If the cultural resource is identified as being potentially eligible for listing on either the NRHP or CRHR, and project designs cannot be altered to avoid impacting the site, a Phase III Data Recovery Program to mitigate project effects shall be initiated. A Data Recovery Treatment Plan detailing the objectives of the Phase III Program shall be developed and shall contain specific testable hypotheses pertinent to the project's Research Design and relative to the site(s) under study. The Phase III Data Recovery Treatment Plan shall be submitted to the County's Planning Department, the Torres-Martinez Desert Cahuilla Indians, if applicable, and the SHPO for review and comment prior to implementation of the Data Recovery Program.

After approval of the Treatment Plan, the Phase III Data Recovery Program for affected, eligible site(s) shall be completed. Typically, a Phase III Data Recovery Program involves the excavation of a statistically representative sample of the site(s) to preserve those resource values that qualify the site(s) as being eligible for listing on the NRHP/CRHR. Again, participant-observer(s) from the Torres-Martinez Desert Cahuilla Indians shall be present during archaeological data-recovery excavations involving sites of Native American concern. At the conclusion of the Phase III Program, a Phase III Data Recovery Report shall be prepared, following the State of California Office of Historic Preservation Archaeological Resource Management Report Recommended Contents and Format Guidelines (California 1990).

The Phase III Data Recovery Report shall be submitted to the County's Planning Department, the Torres-Martinez Desert Cahuilla Indians, if applicable, and the SHPO for review and comment prior to the issuance of a project grading permit.

Implementation Measure 3.4 All archaeological materials recovered during implementation of the project's Phase II Testing or Phase III Data Recovery programs shall be processed, including cleaning and cataloging, detailed description, and analysis, as appropriate. Following completion of laboratory and analytical procedures, all project-related collections shall be suitably packaged and transferred to a curation facility that meets the standards of 36 CFR 79 for long-term storage. Materials to be curated include archaeological specimens and samples, field notes, feature and burial records, maps, plans, profile drawings, photo logs, photographic negatives, consultants' reports of special studies, and copies of the final technical reports.

It should be noted that provisions of the Native American Graves Protection Repatriation Act (NAGPRA) pertaining to Native American burials, sacred objects, and objects of cultural patrimony would come into effect when archaeological materials are recovered from lands owned by the Torres-Martinez Desert Cahuilla Indians and managed by the BIA. NAGPRA would also come into effect when ownership of the collections from anywhere within the Travertine Specific Plan study area is transferred to a curation repository that receives federal funding.

Cultural Resources Policy 4

Ensure proper identification and treatment of cultural resources discovered during project

development and construction.

Implementation Measure 4.1 Registered professional archaeologists and culturally affiliated Native Americans, with knowledge in cultural resources, shall monitor all project-related ground-disturbing activities that extend into natural sediments in areas determined to have high archaeological sensitivity for prehistoric resources.

Prior to grading final for each implementing project, the project applicant shall include in its mitigation plan provisions for the identification and evaluation of archaeological resources inadvertently discovered during construction. If buried archaeological resources are uncovered during construction, all work shall be halted in the vicinity of the archaeological discovery until a registered professional archaeologist can visit the site of discovery and evaluate the significance of the archaeological resource.

Implementation Measure 4.2 If the archaeological resource is determined to be a potentially significant cultural resource, the project proponent's mitigation plan shall include provisions for the preparation and implementation of a Phase III Data Recovery Program, as well as disposition of recovered artifacts, in accordance with Cultural Resources Policy 3 Implementation Measure 4, above. The mitigation plan shall be reviewed and approved by the County prior to grading final.

Implementation Measure 4.3 In the event of an accidental discovery of any human remains in a location other than a dedicated cemetery on privately owned or State-owned land, the steps and procedures specified in Health and Safety Code Section 7050.5, State CEQA Guidelines 15064.5(d), and Public Resources Code Section 5097.98 shall be implemented. Specifically, in accordance with Public Resources Code (PRC) Section 5097.98, the Riverside County Coroner shall be notified within 24 hours of the discovery of potentially human remains. The Coroner shall then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the NAHC by phone within 24 hours, in accordance with PRC Section 5097.98. The NAHC shall then designate a Most Likely Descendant (MLD) with respect to the human remains within 48 hours of notification.

The MLD shall then have the opportunity to recommend to the project proponent means for treating or disposing, with appropriate dignity, the human remains and associated grave goods within 24 hours of notification. Whenever the NAHC is unable to identify a MLD, or the MLD fails to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the MLD and the mediation provided for in subdivision (k) of PRC Section 5097.94 fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall re-enter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

It should be noted in the event that Native American human remains are inadvertently discovered during the County-permitted, project-related construction activities, there would be unavoidable significant adverse impacts to these resources. Implementation of the Cultural Resources Policies

1, 2, and 3 and their corresponding implementation measures would, however, reduce impacts to other types of archaeological resources to a level that is less than significant.

Implementation Measure 4.4 The treatment and management of potential TCPs identified with the Travertine Point Specific Plan study area shall be conducted through extensive consultation with concerned Native American groups and organizations. These consultation efforts shall be conducted utilizing the County of Riverside's SB 18 consultation process.

Cultural Resources Policy 5

Ensure that the project proponent shall bear all costs associated with cultural resources management within the County's jurisdiction.

Implementation Measure 5.1 The project proponent shall bear all expenses related to the identification, evaluation, and treatment of cultural resources directly or indirectly affected by project-related construction activity. Such expenses may include pre-field planning, field work, post-field analysis, research, interim and summary report preparation, and final report production (including draft and final versions), and costs associated with the curation of project documentation and the associated artifact collections.

Implementation Measure 5.2 Prior to grading final, on behalf of the County and the project applicant, the final technical reports detailing the results of the Phase II Testing or Phase III Data Recovery programs shall be submitted to the appropriate Archaeological Information Centers of the California Historical Resources Inventory System for their information and where they would be available to other researchers. Final Phase III Data Recovery Reports shall also be submitted to local libraries, schools, and historical societies to enable the general public to learn about their local cultural heritage.

10.PLANNING 030

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.22-2

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-2 from EIR514 requires:

The project proponent shall make every effort feasible to recycle, reuse, and/or reduce the amount of construction and demolition materials (i.e., concrete, asphalt, wood, etc.) generated by development of the project that would otherwise be taken to a landfill. This diversion of waste must exceed a 50 percent reduction by weight. The project shall complete the Riverside County Waste Management Department Construction and Demolition Waste Diversion Program Form B or and Form C process as evidence to ensure compliance. Form B (Recycling Plan) must be submitted and approved by the Riverside County Waste Management Department and provided to the Department of Building and Safety prior to the issuance of building permits. Form C (Reporting Form) must be approved by the Riverside County Waste Management Department and submitted to the Department of Building and Safety prior to the issuance of certificate of occupancy/final inspection.

10.PLANNING 031

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.22-3

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-3 from EIR514 requires:

Applicant(s) shall dispose of any hazardous wastes, including paint, used during construction and grading at a licensed facility in accordance with local, state, and federal guidelines.

10.PLANNING 032

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.22-4

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-4 from EIR514 requires: All commercial and residential refuse generated from the proposed project within Riverside County portion of the proposed project shall be delivered to the Coachella Valley Transfer Station or the Edom Hill Transfer Station; any residual waste that these transfer stations could not accept shall be disposed of at the Lamb Canyon Landfill or Badlands Landfill or other locations as determined by the Riverside County Waste Management Department. All commercial and residential refuse generated from the proposed project within the Imperial County portion of the proposed project shall be delivered to Salton City Landfill or other locations as determined by the Imperial County Waste Management Department.

10.PLANNING 033

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.22-5

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-5 from EIR514 requires:

The Homeowners Association established for the proposed development shall establish green waste recycling through its yard maintenance or waste hauling contracts. Green waste recycling includes such things as grass recycling (where lawn clippings from a mulching-type mower are left on the lawn) and on- or off-site composting. This measure shall be implemented to reduce green waste going to landfills. If such services are not available through the yard maintenance or waste haulers in the area, the HOA shall provide individual homeowners with information about ways to recycle green waste individually and collectively. Homeowners shall be notified of such in the CC&Rs.

10.PLANNING 034

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.7-1

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.7-1 from EIR514 requires:

Proposed school sites shall undergo subsequent environmental review prior to construction as required by the Coachella Valley Unified School District (CVUSD). Final locations shall be subject to the review and approval of the CVUSD subject to the requirements of the California Department of Education (CDE) and the Department of Toxic Substances Control (DTSC).

10.PLANNING 035

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.7-4

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.7-4 from EIR514 requires:

Prior to building final inspection for each development phase, the homeowner's associations (HOAs) shall coordinate with the CVMVCD to provide public pamphlets that provide

information to minimize mosquito breeding grounds and the HOAs shall work with the CVMVCD to control the mosquito population.

10.PLANNING 036
GENERAL
CONDITIONS

SP - MITIG MEASURE 6.7-5

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.7-5 from EIR514 requires:

Work crews shall use respirators during project clearing, grading, and excavation operations, in accordance with California Division of Occupational Safety and Health regulations. The cabs of grading and construction equipment shall be air conditioned.

10.PLANNING 037
GENERAL
CONDITIONS

SP - MITIG MEASURE 6.7-6

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.7-6 from EIR514 requires:

Construction roads shall be paved, when possible, to reduce fugitive dust and potential exposure to the fungus; or the access road into the project site shall be paved or treated with environmentally safe dust control agents, and where unpaved shall be wetted two times per day to minimize dust.

10.PLANNING 038
GENERAL
CONDITIONS

SP - MITIG MEASURE 6.7-7

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.7-7 from EIR514 requires:

Prior to building final inspection for each planning area, the HOA, in coordination with government authorities (i.e., California Fish and Game), shall prepare public outreach programs and information pamphlets regarding the potential danger of digesting fish and waterfowl tissue that would be contaminated with selenium.

10.PLANNING 039
GENERAL
CONDITIONS

SP - MITIG MEASURE 6.8-4

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.8-4 from EIR514 requires:

Periodic inspection of the conditions of the channels will need to be performed year round and after significant precipitation events will be required to be performed by each homeowner-owner association (HOA). Annual inspection reports shall be prepared by each HOA, and submitted to and filed with the Coachella Valley Water District by June 30th of each calendar year.

10.PLANNING 040
GENERAL
CONDITIONS

SP - MITIG MEASURE 6.8-7

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.8-7 from EIR514 requires:

The location, nature, and importance of the subdrainage system shall be disclosed to the ultimate owners of the property, so that the property owners can avoid damage to the drains' or negatively

affect the drains' performance. In addition to disclosure to potential homeowners, tile drains that cross onto private lots shall be protected by one or more of the following mechanisms: the creation of easements, CC&R protocols, identification through flagging or risers, or other suitable mechanisms.

10.PLANNING 041

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.8-9

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.8-9 from EIR514 requires:

Prior to implementing project approval for each phase or district, as appropriate, the applicant shall submit for review and approval a hydrology report to further define flow conditions related to Channel 4 at SR-86S and for all channels east of SR 86S, and provide for the design of such facilities such that discharge is released in a manner consistent with pre-project/existing conditions, or alternatively, provide for storage or discharge flows within the boundaries of the northern portion of the proposed project or off-site with approval and easements from adjacent property owners.

10.PLANNING 042

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.8-11

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.8-11 from EIR514 requires:

Prior to implementing project approval for each phase or district, as appropriate, the applicant shall submit for review and approval a hydrology report to address potential sediment depositions in the Salton Sea and downstream properties. The report shall provide for design considerations to be implemented in proposed Channels 1, 2 and 3, as appropriate.

10.PLANNING 043

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.8-12

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.8-12 from EIR514 requires:

Prior to implementing project approval for each phase or district, as appropriate, the applicant shall submit for review and approval a plan for the management, operation and maintenance of the flood control system.

10.PLANNING 044

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.11-1

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.11-1 from EIR514 requires:

Where feasible and consistent with the Riverside County standards, any paving or repaving of off-site roadways that must be conducted in conjunction with implementation of the specific plan should utilize asphalt-rubber paving material consisting of 20 percent recycled rubber or more and 80 percent paving-grade asphalt. Studies have demonstrated that such paving material will reduce traffic noise by as much as 3 to 5 dB(A).

10.PLANNING 045

SP - MITIG MEASURE 6.11-2

Status: Conditions:

GENERAL
CONDITIONS

INEFFECT [Informational](#)

Mitigation Measure 6.11-2 from EIR514 requires:

With permission from the Riverside County Transportation Departments, speed limits on arterials experiencing significant noise impacts off-site should be reduced from existing speed limits. Each 5 mile per hour reduction in the speed limit can decrease the CNEL level by about 1 dB(A).

10.PLANNING 046

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.11-8

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.11-8 from EIR514 requires:

The project applicant shall require by contract specifications that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:

- Two weeks prior to the commencement of construction, notification must be provided to surrounding land uses within 1,000 feet of a project site disclosing the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period.
- Ensure that construction equipment is properly muffled according to industry standards and in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Schedule high noise-producing activities between the hours of 8:00 AM and 5:00 PM to minimize disruption to sensitive uses.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the Riverside County or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications shall be included in the proposed

project construction documents, which shall be reviewed by Riverside County prior to grading final.

The Riverside County Building and Safety Department shall monitor and oversee the BMPs to verify that they are implemented correctly by the construction contractors.

10.PLANNING 047

GENERAL

SP - MITIG MEASURE 6.13-4

Status: Conditions:
INEFFECT [Informational](#)

CONDITIONS

Mitigation Measure 6.13-4 from EIR514 requires:

Prior to final building inspection for each implementing project, applicants for implementing projects shall provide final fire-flow plans to the RCFD and SCSD, as appropriate, which include fire-flow requirements within commercial projects to be based on square footage and type of construction associated with development of the structures.

10.PLANNING 048

GENERAL

SP - MITIG MEASURE 6.13-5

Status: Conditions:
INEFFECT [Informational](#)

CONDITIONS

Mitigation Measure 6.13-5 from EIR514 requires:

Prior to final building inspection for each implementing project, applicants for implementing projects shall provide final fire flow plans to the RCFD ensuring that all water mains and fire hydrants providing required fire flows would be constructed in accordance with the appropriate development schedule sections of Riverside County Ordinance No. 460 and/or Ordinance No. 787. Each fire flow plan that is submitted would be reviewed and approved by the RCFD prior to final building inspection.

10.PLANNING 049

GENERAL

SP - MITIG MEASURE 6.21-1

Status: Conditions:
INEFFECT [Informational](#)

CONDITIONS

Mitigation Measure 6.21-1 from EIR514 requires:

The applicant shall prepare and submit to CVWD, SCSD, the County of Riverside, as appropriate, a Wastewater Management Plan (WMP) that provides for the final location, development, and funding mechanisms of the wastewater conveyance infrastructure system and wastewater treatment system associated with development of the entire project. This WMP shall describe and finalize the design parameters and locations of piping necessary to convey wastewater originating within the project site for the specified tract. Each WMP shall also be submitted to the Regional Water Quality Control Board for approval and to ensure that the wastewater infrastructure conveyance system meets their requirements for collection and treatment of wastewater. The Wastewater Management Plan shall be reviewed and approved by CVWD and Riverside County for the portion of the project in Riverside County prior to the recordation of any final subdivision map in Riverside County.

10.PLANNING 051

GENERAL

SP - MITIG MEASURE 6.22-6

Status: Conditions:
INEFFECT [Informational](#)

CONDITIONS

Mitigation Measure 6.22-6 from EIR514 requires:

Prior to issuance of Building Permits for any multi-unit residential, commercial or industrial facilities, clearance from the Riverside County Waste management Department is needed to verify compliance with California Solid Waste Reuse and Recycling Act of 1991 (AB 1327), which requires the local jurisdiction to require adequate areas for collecting and loading recyclable materials.

10.PLANNING 052

GENERAL SP - MITIG MEASURE 6.22-8
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-8 from EIR514 requires:

Prior to implementing project approval for Planning Areas 2-17, 2-21, 2-19, and 2-20, the applicant(s) shall provide for a buffer and restrict development adjacent to the active or closed landfill from the Oasis Landfill property line for a distance of a minimum of 1,000 feet and a maximum of 1,320 feet originating at the Oasis Landfill disposal footprint, until the landfill is closed to provide adequate spacing for monitoring probes, as recommended by the RCWMD and in accordance with the Southern California Air Quality Management District's Rule 1150.1.

10.PLANNING 053

GENERAL SP - MITIG MEASURE 6.22-9
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-9 from EIR514 (as revised by the RRDEIR) requires:

Prior to implementing project approval for Planning Areas 2-18 and 2-19, the Oasis landfill shall be closed by the RCWMD in accordance with CalRecycle guidelines for closure with waste in place.

10.PLANNING 054

GENERAL SP - MITIG MEASURE 6.22-10
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.22-10 from EIR514 requires:

Prior to implementing project approval in Planning Area 2-18, the applicant shall consult with officials from RCWMD and agree on a circulation plan for roads that would be developed around and adjacent to the Oasis Landfill site. Best Management Practices (BMPs) shall be developed and implemented within the circulation plan for Planning Areas 2-18 and 2-19 to avoid the restructuring of roadways around and adjacent to the Oasis Landfill.

10.PLANNING 055

GENERAL SP - MITIG MEASURE 6.23-4
CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Mitigation Measure 6.23-4 from EIR514 requires:

Prior to the first implementing project approval for each development phase, the project applicant shall submit a plan for providing local transit services within the project site to the Riverside County Planning Department for review and approval.

10.PLANNING 056 SP - HOLD HARMLESS (2)

Status: Conditions:

GENERAL
CONDITIONS

INEFFECT [Informational](#)

The Desert Recreation District (DRD) or other designated entity responsible for park maintenance shall indemnify all usual park and recreational activities and shall be responsible for all maintenance and repair activities of improvements proposed by and for the SPECIFIC PLAN within Planning Area 2-18. This does not include Riverside County Waste Management facilities.

10.PLANNING 057

GENERAL
CONDITIONS

SP - DRP CONSISTENCY

Status: Conditions:
INEFFECT [Informational](#)

All implimenting projects must be consistent with the approved DISTRICT REFINEMENT PLAN of the corresponding DISTRICT, per the SPECIFIC PLAN.

10.PLANNING 058

GENERAL
CONDITIONS

SP - DU/BLDG PERM MATRIX

Status: Conditions:
INEFFECT [Informational](#)

Given the size and scope of the project, every condition of approval which uses the term "Building Permit" as a trigger point shall be interpreted to mean "Residential Dwelling Unit." For example a 100 unit apartment complex in one building shall count as 100 BUILDING PERMITS for purposes of these conditions, not simply one building permit. Additionally, the Matrix shall make it clear which residential units are within the County Jurisdiction and which are not. A total unit count, regardless of jurisdiction, must be shown as most conditions are triggered by a total project unit count for all jurisdictions.

For purposes of tracking the total build out of the SPECIFIC PLAN, the TLMA Counter Services Team shall maintain a TOTAL DWELLING UNIT TRACKING MATRIX. The matrix shall differentiate between individual building permits and the total number of dwelling units that are represented by the building permits that have been issued for the entire SPECIFIC PLAN. Any condition that requires a specific action at a specified "building permit issuance" shall use the TOTAL DWELLING UNIT TRACKING MATRIX to determine if the threshold has been met.

10.PLANNING 059

GENERAL
CONDITIONS

SP - PUB BLDG STANDARDS

Status: Conditions:
INEFFECT [Informational](#)

All public buildings which require an occupancy permit and are intended to be owned by the County upon completion shall comply with Board Policy H-29.

10.PLANNING 060

GENERAL
CONDITIONS

SP - MODIFICATN TO CONDITIONS

Status: Conditions:
INEFFECT [Informational](#)

Once the SPECIFIC PLAN is approved, in addition to any thresholds listed in the SPECIFIC PLAN, any modifications to the Conditions of Approval that affect the entire SPECIFIC PLAN shall require a SPECIFIC PLAN Amendment unless otherwise determined by the County Planning Director. Any modifications to the Conditions of Approval that only affect a specific DISTRICT shall require a Substantial Conformance determination to the SPECIFIC PLAN.

10.PLANNING 061

GENERAL

SP - IMPERIAL SP APPROVAL

Status: Conditions:
INEFFECT [Informational](#)

CONDITIONS

The County of Riverside adoption of the SPECIFIC PLAN only pertains to those areas where the County has jurisdiction. If for any reason Imperial County does not approve the portion of the SPECIFIC PLAN within Imperial County, or if Imperial County adopts a version of the SPECIFIC PLAN that is not in substantial conformance with the County of Riverside adopted SPECIFIC PLAN, then an amendment to the entire SPECIFIC PLAN, through the County of Riverside will be required to assure consistency.

10.PLANNING 062

GENERAL
CONDITIONS

SP - IMPLEMENTING PROJECTS

Status: Conditions:
INEFFECT [Informational](#)

For the purposes of this project, any condition of approval that refers to "implementing projects" shall include Schedule I subdivisions as identified in Ordinance No. 460.

10.PLANNING 063

GENERAL
CONDITIONS

SP - TILE DRAINS

Status: Conditions:
INEFFECT [Informational](#)

Portions of the site are underlain by an existing tile drain system installed in the past to help control high groundwater levels and related saltation problems associated with former agricultural activities. If any tile drains exist within the boundaries of any implementing project, that project shall complete a review of the tile drain system to be submitted for review and approval by the County Geologist. Said study shall, at a minimum, determine if the drains are structurally sound, or if the system should be replaced. In no case shall a project with previous tile drains be permitted to develop without a tile drain system to control future groundwater levels which will assist in the mitigation of liquefaction. In addition these drains will help prevent the development of a "salt" crust related to evapotranspiration of landscape water.

Any future underground utility lines which intercept the existing tile drain system should be evaluated on a case-by-case basis to determine if they will interfere with or assist the performance of the existing tile drains. All underground utilities which may potentially provide for enhanced groundwater control should be incorporated into the existing system so as to provide additional control of the groundwater levels beneath this site. Any interference of a newly installed utility or any other underground installation (i.e. swimming pools, basements, etc.) with the existing tile drains should be addressed in such a way as to maintain the functionality of the tile drain system. If no tile drains are located this condition shall not apply.

10.PLANNING 064

GENERAL
CONDITIONS

SP - DRP REQUIRED

Status: Conditions:
INEFFECT [Informational](#)

Prior to or concurrent with the first approval of any implementing project within any DISTRICT, a Specific Plan Substantial Conformance application for a DISTRICT REFINEMENT PLAN shall be required in accordance with Section 3.13.1.1 of the SPECIFIC PLAN. No implementing project shall be approved before a DISTRICT REFINEMENT PLAN for the corresponding DISTRICT receives approval from the Planning Commission. DISTRICT REFINEMENT PLANS may be processed concurrently with implementing projects.

Note: The DISTRICT REFINEMENT PLAN is processed as a Specific Plan Substantial Conformance; however, once approved the Planning Director shall create a new LMS

development number for the land management tracking system and all implementing projects within the respective DISTRICT shall be attached to the new DISTRICT REFINEMENT PLAN development number. Once the DISTRICT REFINEMENT PLAN is approved, all Specific Plan Conditions of approval shall be transferred into the new development number created by the DISTRICT REFINEMENT PLAN. All dwelling units shall be tracked at the DISTRICT level through the DISTRICT REFINEMENT PLAN development number and through the separate spread sheet referenced in condition 10.Planning.58 DU/BUILDING PERMIT MATRIX. Additionally, only Conditions of Approval appropriate to the DISTRICT need be moved. Minor modifications to the Conditions of Approval are permitted for the DRP if said revisions are specific to the DISTRICT and do not significantly alter the intent of the Condition of Approval. This note shall not apply if an alternative permit tracking process to LMS is being used.

Once approved, the DISTRICT REFINEMENT PLAN shall be added as an appendix to the SPECIFIC PLAN and act as additional Design Standards for the respective DISTRICT."

10.PLANNING 065
 GENERAL SP - NEIGHBORHOOD PARKS Status: Conditions:
 CONDITIONS INEFFECT [Informational](#)

A minimum of 6.6 acres of neighborhood parks shall be developed in conjunction for every 500 residential dwelling units.

10.PLANNING 066
 GENERAL SP - AG SETBACKS Status: Conditions:
 CONDITIONS INEFFECT [Informational](#)

Existing Agricultural uses are allowed to continue during the development of the SPECIFIC PLAN. Proposals to improve, enhance, intensify and/or expand an existing agricultural operation shall be subject only to the approval of the Travertine Point Property Owners Association, provided the public's health, safety and welfare are protected and that no existing residential use is closer than 300 feet of the existing and/or proposed improvement, enhancement, intensification and/or expansion. Residential units associated with or ancillary to the existing agricultural operation are not included in the 300 foot setback requirement. Agricultural uses proposed less than 300 feet from existing residential uses would require a Conditional Use Permit.

10.PLANNING 067
 GENERAL MM - LANDFILL MOU IMP Status: Conditions:
 CONDITIONS INEFFECT [Informational](#)

All provisions of the Landfill MOU specified in condition of approval 30.PLANNING.2 shall be implemented throughout the life of the project to the satisfaction of the Riverside County Waste Management Department.

10.PLANNING 068
 GENERAL SP - MUOZ BOUNDARY Status: Conditions:
 CONDITIONS INEFFECT [Informational](#)

The zoning ordinance for the project permits the use of Mixed Use Overlay Zones (MUOZ) intended to foster different types of mixed use development. Mixed Use Overlay Zones are only permitted in Planning Areas with a Mixed Use Designation, specifically Districts 1, 2, and/or 4. The boundary of any MUOZ shall be legally defined by zoning ordinance in conjunction with approval of one or more Districts Refinement Plans (DRPs) as outlined in the SPECIFIC PLAN.

Changes to the boundaries of any established MUOZ shall require a change of zone application to be approved.

10.PLANNING 069

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.3-17(2)

Status: Conditions:
INEFFECT Informational

To assure that all payments indicated in Condition of Approval 30.PLANNING.157 have been made, 10 years after the first \$25,000 payment has been made to the Salton Sea Authority, the applicant shall provide evidence that all payments required by EIR Mitigation Measure 6.3-17 have been made.

*This Condition was added as a result of the RRDEIR.

10.PLANNING 070

GENERAL
CONDITIONS

SP - MITIG MEASURE 6.16-7

Status: Conditions:
INEFFECT Informational

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Mitigation Measure 6.16-7 from EIR514 (as revised by the RRDEIR) requires:

Prior to approval of any subsequent actions to implement the project in planning areas as defined in the specific plan located adjacent to western boundary of the site, a landscaping plan shall be developed and submitted for drainage channels along the western perimeter of the project site. The landscaping plan shall require the planting of native plant species with thorns, such as cat-claw acacia and mesquite shrubs, adjacent to walls and trails on the western boundary of the site. This plan must be reviewed and approved by the Riverside or Imperial County Planning Director for the portions of the project located in each county."

10.TRANS 001

GENERAL
CONDITIONS

SP - SP375/TS CONDITIONS

Status: Conditions:
INEFFECT Informational

The Transportation Department has reviewed the Traffic Impact Analysis (TIA), dated March 9, 2009 submitted for the proposed project. The TIA has been prepared in accordance with County-approved guidelines. The Transportation Department has also reviewed the Traffic Study Supplement (TSS), dated August 5, 2010. We generally concur with the findings relative to traffic impacts.

The General Plan circulation policies require a minimum of Level of Service 'C', except that Level of Service 'D' may be allowed in community development areas at intersections of any combination of secondary highways, major highways, arterials, urban arterials, expressways or state highways and ramp intersections.

The TIA and TSS indicate that it is possible to achieve adequate levels of service for the following intersections based on the traffic study assumptions.

Harrison Street (NS) at: 62nd Avenue (EW)

Harrison Street (NS) at: 64th Avenue (EW)

Harrison Street (NS) at: 66th Avenue (EW)

Harrison Street (NS) at: 70th Avenue (EW)

Harrison Street (NS) at: 72nd Avenue (EW)

Harrison Street (NS) at: 74th Avenue (EW)

Harrison Street (NS) at: Pierce Street (EW)

Harrison Street (NS) at: 78th Avenue (EW)

Harrison Street (NS) at: 81st Avenue (EW)

Polk Street (NS) at: 74th Avenue (EW)

Fillmore Street (NS) at: 78th Avenue (EW)

Village Way (NS) at: 82nd Avenue (EW)

Village Way (NS) at: Jewel Street (EW)

Village Way (NS) at: Town Center Way North (EW)

Village Way (NS) at: Town Center Way South (EW)

SR-86S Southbound Ramps (NS) at: 62nd Avenue (EW)

SR-86S Northbound Ramps (NS) at: 62nd Avenue (EW)

SR-86S Southbound Ramps (NS) at: 66th Avenue (EW)

SR-86S Northbound Ramps (NS) at: 66th Avenue (EW)

SR-86S Southbound Ramps (NS) at: 70th Avenue (EW)

SR-86S Northbound Ramps (NS) at: 70th Avenue (EW)

SR-86S Southbound Ramps (NS) at: 74th Avenue (EW)

SR-86S Northbound Ramps (NS) at: 74th Avenue (EW)

SR-86S Southbound Ramps (NS) at: 81st Avenue (EW)

SR-86S Northbound Ramps (NS) at: 81st Avenue (EW)

SR-86 Southbound Ramps (NS) at: Town Center Way (EW)

SR-86 Northbound Ramps (NS) at: Town Center Way (EW)

SR-86 Southbound Ramps (NS) at: Desert Shores Drive (EW)

SR-86 Northbound Ramps (NS) at: Desert Shores Drive (EW)

SR-86 Southbound Ramps (NS) at: Brawley Avenue (EW)

SR-86 Northbound Ramps (NS) at: Brawley Avenue (EW)

SR-86 Southbound Ramps (NS) at: Sea Oasis Boulevard (EW)

SR-86 Northbound Ramps (NS) at: Sea Oasis Boulevard (EW)

SR-86 Southbound Ramps (NS) at: Marina Drive (EW)

SR-86 Northbound Ramps (NS) at: Marina Drive (EW)

Paseo Street (NS) at: 81st Avenue (EW)

Lincoln Street (NS) at: 81st Avenue (EW)

Lincoln Street (NS) at: Paseo Street (EW)

Lincoln Street (NS) at: Jewel Street (EW)

Gateway Street (NS) at: Town Center Way West (EW)

Jewel Street (NS) at: Paseo Street North (EW)

Jewel Street (NS) at: Paseo Street South (EW)

Jewel Street (NS) at: Bayside Way (EW)

Town Center Way (NS) at: Paseo Street North (EW)

Town Center Way (NS) at: Paseo Street South (EW)

Travertine Estates (NS) at: Paseo Street (EW)

A Street (NS) at: Jewel Street (EW)

A Street (NS) at: Desert Shores Drive (EW)

Sea Oasis Drive (NS) at: Travertine Estates (EW)

Sea Oasis Drive (NS) at: Desert Shores Drive (EW)

The associated conditions of approval incorporate mitigation measures identified in the traffic study, which are necessary to achieve or maintain the required level of service.

10.TRANS 002

GENERAL

SP-SP375/DEF-PROJ DEV DISTS

Status: Conditions:

CONDITIONS

INEFFECT [Informational](#)

In SP00375 five Development Districts are identified. The Planning Areas in each District are numbered as follows:

District 1:Planning Areas 1-1 through 1-23

District 2:Planning Areas 2-1 through 2-21

District 3:Planning Areas 3-1 through 3-12

District 4:Planning Areas 4-1 through 4-8

District 5:Planning Areas 5-1 through 5-15

10.TRANS 003

GENERAL

SP-SP375/DEF-RDWY IMPVT PHASES

Status: Conditions:

CONDITIONS

INEFFECT [Informational](#)

In the TSS for SP00375, dated August 5, 2010, nineteen (19) transportation improvement phases are identified. Following is a listing of the transportation system improvement phases and the Planning Areas that would be developed in each phase.

Rdwy Impvt Phase Planning Areas Developed

1 1-1,1-2,1-3,1-5,1-7,1-8,1-12 (partial)

2a 1-9,1-12(partial),1-13,1-14,1-15

2b 1-4,1-6,1-11

2c 2-1,2-1,2-3

2d 2-8,2-9,2-14 (partial)

2e 1-16,4-5 (partial)

2f 2-19 (partial),2-20 (partial), 2-21,4-1

3a 1-10,2-4,2-5,2-6,2-7,2-10,2-11,2-12

3b 4-3,4-4 (partial), 5-1

3c 5-13

3d 2-13,2-14 (partial),2-15,2-16

3e 2-17, 2-18,2-19 (partial),2-20 (partial)

3f 4-2,4-5 (partial),4-6

3g 1-17,1-18,1-19,1-20,1-21,1-22,1-23

3h 4-7,4-8

3i 3-1,3-2

3j 3-3,3-4,3-5,3-6,3-7,3-8,3-9,3-10, 3-11,3-12

3k 4-4,5-2,5-3,5-4,5-5

3l 5-6,5-7,5-8,5-9,5-10,5-11,5-12, 5-14,5-15

If development occurs in a different order, or if there is substantial overlapping of phases, then a new traffic study shall be completed to determine if any improvements from the prior un-built phase need to be constructed to mitigate impacts caused by the phase being developed.

10.TRANS 004
 GENERAL
 CONDITIONS

SP-SP375/FUND SR-86/SR-86S IMP

Status: Conditions:
 INEFFECT [Informational](#)

Recognizing that 00375 and other developments in Riverside and Imperial Counties along the SR-86/SR86-S will necessitate improvements along SR-86/SR-86S, Riverside County will take the lead in upgrading SR-86/SR-86S to a six-lane freeway between 62nd Avenue in Riverside County and Marina Drive in Imperial County. The six-lane freeway would have grade-separated interchanges in Riverside County at SR-86S/62nd Avenue, SR-86S/66th Avenue,SR-86S/70th Avenue, SR-86S/74th Avenue, SR-86S/81st Avenue, SR-86/Town Center Way North, and in Imperial County at SR-86/Desert Shores Drive, SR-86/Brawley Avenue, SR-86/Sea Oasis Boulevard, and SR-86/Marina Drive. Pending the outcome of further engineering, financial,

environmental, and other studies, the County intends to establish a Road and Bridge Benefit District (RBBD), or other area-wide funding mechanism for the corridor, which includes this project site, in order to upgrade SR-86/SR-86S to a six-lane freeway. The funding mechanism may have a two-tiered structure:

One tier to fund the addition of one lane in each direction along SR-86/SR-86S that would include the entire benefit corridor, and

A second tier consisting of several subareas within the benefit corridor to fund interchanges that would serve a specific subarea.

The Traffic Study for the Project used a 10 mile study area north and south of the Project site, which is twice the 5 mile study scope typically required by the County. Impacts within the study scope area are fully mitigated as set forth in this EIR. Possible impacts beyond the 10 mile study area are deemed too speculative to evaluate at this time, given various unknown factors such as the pace of Specific Plan implementation over an estimated 30-40 year build out, the pace of other improvements to local roads and highways during that 30-40 year project build out, and the pace of other development in the vast area north and south of the Specific Plan site that may contribute trips but also funding sources for road and highway improvements. The project conditions of approval require that all future tract maps be conditioned to provide updated traffic studies prior to final map approval. Those traffic studies shall include an analysis of potentially significant traffic impacts beyond the 10 mile study scope established by the County for the Specific Plan traffic study. To the extent that future traffic studies, required for all implementing tract maps, show any significant impacts beyond the 10 mile study area used for the Specific Plan traffic study, including but not limited to significant impacts to 86s, the I-10, and/or local roadways, the tract map applicants shall be required to participate in an RBBD, or other similar financial mechanism such as a CFD, to mitigate such impacts to a less than significant level. Implementing projects of SP375 shall be required to pay CVAG TUMF fees. The fees collected can also be made eligible, through the CVAG transportation prioritization process, for regional improvements within and beyond the study area.

20.PLANNING 001

PRIOR TO A CERTAIN SP - 90 DAYS TO PROTEST
DATE

Status: Conditions:
INEFFECT **Outstanding**

The applicant has ninety (90) days from the date of the approval of these conditions to protest, in accordance with the procedures set forth in Government Code Section 66020, the imposition of any and all fees, dedications, reservations, and/or exactions imposed on this project as a result of the approval or conditional approval of this project.

20.PLANNING 002

PRIOR TO A CERTAIN SP - SUBMIT FINAL DOCUMENTS
DATE

Status: Conditions:
INEFFECT **Outstanding**

Within 60 days of the tentative approval of the project by the Board of Supervisors and prior to closing the DBF accounts for the project, Four (4) hard copies and Fifteen (15) copies on CD of the final SPECIFIC PLAN and EIR documents (SP/EIR) documents shall be submitted to the Planning Department for review, approval and distribution. The documents shall include all the items listed in the condition titled "SP - Documents". The final SP/EIR documents shall be

distributed in the following fashion:

One hard copy to the Planning Counter Services Division,

One hard copy to the Planning Department Library,

One hard copy to the Desert Office,

One hard copy to the Planning Department Project Manager,

Digital versions (CD) to the following:

Building and Safety Department 1 copy

Department of Environmental Health 1 copy

Fire Department 1 copy

Flood Control and Water Conservation District 1 copy

Transportation Department 1 copy

Executive Office - CSA Administrator 1 copy

Clerk of the Board of Supervisors 1 copy

Any park provider if not the CSA 1 copy

Any and all remaining documents shall be kept with the Planning Department in Riverside, or as otherwise determined by the Planning Director.

30.E HEALTH 001
PRIOR TO ANY SP-WATER AND SEWER WILL SERVE Status: Conditions:
PROJECT APPROVAL INEFFECT **Outstanding**

A "will serve" letter from the agency serving potable water and sanitary sewers is required.

30.E HEALTH 002
PRIOR TO ANY SP - LEA CLEARANCE Status: Conditions:
PROJECT APPROVAL INEFFECT **Outstanding**

Clearance from Environmental Resource Management Division (Local Enforcement Agency) is required.

30.EPD 001
PRIOR TO ANY SP - MITIG MEASURE 6.4-1 Status: Conditions:
PROJECT APPROVAL INEFFECT **Outstanding**

EIR00514 MM 6.4-1 Prior to implementing project approval, a qualified biologist currently holding an MOU with Riverside County shall conduct a focused survey for the two special-status plant species observed within the Riverside County portion of the proposed project site,

chaparral sand verbena and Peirson's pebble pincushion, which are not covered under the CVMSHCP within the proposed development areas in order to determine the extent of individual plants to be impacted by the implementing project design. Impacts resulting from project construction to the two special-status plant species observed shall be mitigated through a seed collection and planting program. The planting program will be reviewed and approved by the Environmental Programs Division and CDFG and will include provisions for monitoring success criteria and performance standards.

30.EPD 002

PRIOR TO ANY SP - MITIG MEASURE 6.4-2
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-2 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the project applicant shall retain a qualified biologist currently holding an MOU with Riverside County, to collect seed from special status plant species individuals during the appropriate season (after the blooming period, when seeds have formed). The collected seed shall be planted in predetermined suitable habitat in an appropriate area within Open Space (Conservation) on the project site that will not be impacted by project development or subsequent activities. A portion of Sonoran creosote bush scrub and blue palo verde wash woodland located in the southern portion of the proposed project site will remain undeveloped upon implementation of the proposed project. In addition, appropriate disturbed/recovering Sonoran creosote bush scrub areas will also be areas for potential seed planting.

30.EPD 003

PRIOR TO ANY SP - MITIG MEASURE 6.4-3
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-3 Prior to map recordation (AND/OR OTHER APPROPRIATE MILESTONE), the project applicant shall protect those portions of Sonoran creosote bush scrub and blue palo verde wash woodland occurring within the Open Space-Conservation land use category through a conservation easement, deed restriction, or similar mechanism. This area provides suitable habitat for relocation of chaparral sand verbena and Peirson's pebble pincushion. A report documenting the seed collection and planting plan shall be submitted to the Riverside County Environmental Programs Division.

30.EPD 004

PRIOR TO ANY SP - MITIG MEASURE 6.4-4
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map,

parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-4 Impacts resulting from project construction within the Riverside County portion of the proposed project site to those special-status wildlife species covered under the CVMSHCP, including desert pupfish, flat-tailed horned lizard, Yuma clapper rail, burrowing owl, Crissal thrasher, Le Conte's thrasher, western yellow bat, Palm Springs round-tailed ground squirrel, and Palm Springs pocket mouse, shall be mitigated through payment of the CVMSHCP Local Development Mitigation Fee.

Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), fee payment shall be made in accordance with Ordinance 875 by the project applicant to Riverside County.

30.EPD 005

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-5

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-5 Impacts resulting from project construction within the Riverside County portion of the proposed project site to Couch's spadefoot, which is not covered under the CVMSHCP, shall be mitigated. Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), in areas of suitable habitat for Couch's spadefoot on the project site, a qualified biologist currently holding an MOU with Riverside County shall conduct focused surveys including areas of ruts or small pools, as well as the irrigation ponds, and relocate any toad individuals or eggs found. The survey shall be conducted during the active season of Couch's spadefoot (which corresponds with the rainy season). The survey results shall be submitted to the Riverside County Environmental Programs Division and CDFG.

30.EPD 006

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-6

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-6 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), if the focused surveys required under mitigation measure 6.4-5 result in the observation of Couch's spadefoot within project impact areas, observed individuals and/or eggs shall be removed from project impact areas (with the prior approval of the CDFG) and relocated to predetermined suitable habitat in an appropriate area within Open Space-Conservation areas on the project site that will not be impacted. A portion of Sonoran creosote

bush scrub and blue palo verde wash woodland located in the southern portion of the proposed project site will remain undeveloped upon implementation of the proposed project.

Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the project applicant shall protect those portions of Sonoran creosote bush scrub and blue palo verde wash woodland occurring within the Open Space-Conservation land use category through a conservation easement, deed restriction, or similar mechanism, as required by Mitigation Measure 6.4-3. If suitable habitat for relocation of Couch's spadefoot is found within this area, toad individuals or eggs will be taken to this location. In addition, suitable disturbed/recovering Sonoran creosote bush scrub areas will also be considered for relocation efforts.

30.EPD 007

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-7

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-7 Impacts resulting from project construction to rosy boa, which is not covered under the CVMSHCP, within the Riverside County portion of the proposed project site shall be mitigated through pre-construction surveys and relocation. Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the applicant shall retain a qualified biologist currently holding an MOU with Riverside County to conduct focused pre-construction surveys for individuals of this species within suitable habitat for the species. Surveys shall be conducted within suitable habitat located within 500 feet of the grading limits. Surveys shall include an examination of those portions of Sonoran creosote bush scrub, blue palo verde wash woodland, disturbed/recovering Sonoran creosote bush scrub, and saltbush scrub habitats that will be developed as part of project implementation.

If rosy boa individuals are found, an active trapping and relocation program, conducted by a qualified biologist currently holding an MOU with Riverside County and in coordination with the CDFG, that will move individuals to suitable on-site habitat that will not be directly impacted by project implementation, shall take place. A portion of Sonoran creosote bush scrub and blue palo verde wash woodland located in the southern portion of the proposed project site will remain undeveloped upon implementation of the proposed project.

In the event that off-site habitat areas within 500 feet of grading are not accessible during preconstruction surveys, the presence of rosy boa shall be assumed and the entire project site boundary within 500 feet of grading activities shall be fenced to prohibit entry of rosy boa into the grading site. The fence shall be monitored as a regular part of construction monitoring.

The project applicant shall protect those portions of Sonoran creosote bush scrub and blue palo verde wash woodland occurring within the Open Space-Conservation land use category through a conservation easement, deed restriction, or similar mechanism, as required by Mitigation Measure 6.4-3. This area provides suitable habitat for relocation of rosy boa.

30.EPD 008

SP - MITIG MEASURE 6.4-8

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-8 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), impacts resulting from project construction within the Riverside County portion of the proposed project site to special-status bird species not covered under the CVMSHCP, which include loggerhead shrike and black tailed gnatcatcher, shall be mitigated through pre-construction surveys for nesting individuals of these species. Such surveys may be conducted concurrently with general nesting bird surveys, discussed in Mitigation Measure 6.4-13, and shall follow the methodology given in Mitigation Measure 6.4-13. If construction activities on the site are proposed during the nesting/breeding season (February 1 through August 31), a pre-activity survey shall be conducted by a qualified biologist currently holding an MOU with Riverside County prior to implementing project approval, to determine if active nests of species protected by the Migratory Bird Treaty Act (MBTA) or the California Fish and Game Code are present in the construction zone. Once the survey is complete, a report shall be prepared and sent to the Environmental Programs Division for review and concurrence. If active nests are observed and located, consultation with the California Department of Fish and Game (CDFG) to establish appropriate buffers will be required and the results of the report shall be submitted to CDFG for review and approval. The Environmental Programs Division will be contacted to ensure that proper CDFG approved buffers are in place prior to the issuance of a grading permit. No grading permits will be issued until the Environmental Programs Division confirms the presence of appropriate buffers. In addition, a biological monitor will also be required to be on site during all grading activities to ensure that the buffers are not compromised. At the conclusion of all grading activity, the biological monitor will submit a letter report to the Environmental Programs Division summarizing the result of the grading activity. Focused surveys for nesting loggerhead shrike and black-tailed gnatcatcher individuals shall be conducted in trees and shrubs of Sonoran creosote bush scrub, blue palo verde wash woodland, disturbed/recovering Sonoran creosote bush scrub, and saltbush scrub habitats that will be developed as part of project implementation or that is located within 500 feet of development areas. Because of the high mobility of non-nesting adult individuals of these species, it is expected that surveys for nesting individuals and their young, and protection for any nesting birds found, will provide the mitigation appropriate for project-related impacts. Where nesting loggerhead shrike and/or black tailed gnatcatcher individuals are found, protection of nests shall include postponing or halting clearing and construction activities within 500 feet of the nest until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting, as determined by the biologist. Construction personnel shall be instructed on the sensitivity of nest areas and shall be instructed to avoid entering the approved buffers around the nest. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas (within 500 feet) to ensure that no inadvertent impacts on these nests will occur. The results of the survey, as well as any avoidance measures taken and the success of those measures, shall be submitted to the Riverside County Environmental Programs Division within 30 days of completion of the pre-construction surveys and/or

construction nest monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

30.EPD 009

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-9

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-9 Prior to implementing project approval, impacts resulting from project construction within the Riverside County portion of the proposed project site to pallid San Diego pocket mouse, which is not covered under the CVMSHCP, shall be mitigated through focused surveys utilizing small mammal trapping and relocation of this species. The applicant shall retain a qualified biologist currently holding a MOU with Riverside County to conduct the trapping. The survey results shall be submitted to the Riverside County Environmental Programs Division and CDFG. If pallid San Diego pocket mouse is found during small mammal trapping efforts, an active trapping and relocation plan shall be prepared by a qualified biologist currently holding a MOU with Riverside County. The relocation plan shall be submitted to Riverside County Environmental Programs Division and CDFG for review and approval.

Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), if pallid San Diego pocket mouse is found during small mammal trapping efforts, an active trapping and relocation program shall be conducted by a qualified biologist currently holding a MOU with Riverside County, in accordance with the approved relocation plan. The active trapping and relocation program shall move individuals to suitable on-site or off-site habitat that will not be directly impacted by project implementation. Permits will not be issued until all appropriate documentation relative to the completion of the trapping effort has been submitted to Riverside County Environmental Programs Division and CDFG for review and approval. A portion of Sonoran creosote bush scrub and blue palo verde wash woodland located in the southern portion of the proposed project site will remain undeveloped upon implementation of the proposed project. Prior to implementing project approval, the project applicant shall protect those portions of Sonoran creosote bush scrub and blue palo verde wash woodland occurring within the Open Space- Conservation land use category through a conservation easement, deed restriction, or similar mechanism, as required by Mitigation Measure 6.4-3. This area provides suitable habitat for relocation of pallid San Diego pocket mouse.

30.EPD 010

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-10

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-10 Prior to the issuance of a grading permit (AND/OR OTHER

APPROPRIATE MILESTONE), impacts resulting from project construction within the Riverside County portion of the proposed project site to Colorado Valley woodrat, which is not covered under the CVMSHCP, shall be mitigated through pre-construction surveys and relocation. The applicant shall retain a qualified biologist currently holding an MOU with Riverside County, to conduct focused pre-construction surveys for individuals of this species within suitable habitat for the species. Surveys shall be conducted within suitable habitat located within 500 feet of grading limits. Surveys shall include an examination of those portions of Sonoran creosote bush scrub, blue palo verde wash woodland, disturbed/recovering Sonoran creosote bush scrub, and saltbush scrub habitats that will be developed as part of project implementation. The biologist shall survey for Colorado Valley woodrat nests.

Where a Colorado Valley woodrat nest is found, it shall be determined by the biologist in which direction escape by any rat individuals occurring inside the nest will be encouraged. Vegetation around the nest in the opposite direction shall be cleared to discourage woodrat individuals from moving in that direction. Once vegetation in that direction is cleared, the nest shall be nudged with a front-end loader, encouraging any woodrats in the nest to exit the structure in the direction that leads toward adjacent habitat occurring within the Open Space-Conservation land use category of the proposed project or alternatively within areas near the project site (such as ABDSP and SRSJM National Monument, or other state or federally controlled open space lands as allowable by the administering agencies) including areas within conservation easements). Once any woodrats present in the nest have been encouraged to exit the nest, nest materials shall be carefully and slowly picked up with a front end loader (slowly enough that any woodrats remaining in the nest can escape), and the materials shall be moved to adjacent suitable habitat, as noted above, that will not be impacted by project development, where woodrats may scavenge nest materials to build new nests. Due to hantavirus hazards, the nest shall not be excavated by hand, and nest materials shall not be carried by hand.

In the event that off-site habitat areas within 500 feet of grading are not accessible during preconstruction surveys, the presence of Colorado Valley woodrat shall be assumed and the entire project site boundary within 500 feet of grading activities shall be fenced to prohibit entry of woodrats into the grading site. The fence shall be monitored as a regular part of construction monitoring.

30.EPD 011

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-11

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-11 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), impacts resulting from project construction within the Riverside County portion of the proposed project site to American badger, which is not covered under the CVMSHCP, shall be mitigated through a pre-construction clearance survey. The applicant shall retain a qualified biologist currently holding an MOU with Riverside County to conduct focused pre-construction surveys for individuals of this species within suitable habitat

for the species. Surveys shall be conducted within suitable habitat located within 500 feet of grading limits. Surveys shall include an examination of those portions of Sonoran creosote bush scrub, blue palo verde wash woodland, disturbed/recovering Sonoran creosote bush scrub, and saltbush scrub habitats that will be developed as part of project implementation.

If an active American badger burrow is located within project impact areas, a relocation program shall be implemented to remove the individual(s) from the area. The relocation program may be passive, in which badgers are excluded from occupied burrows by installation of a one-way door in burrow entrances, monitoring of the burrow for one week to confirm badger usage has been discontinued, and hand excavation and collapse of the burrow to prevent reoccupation; or the relocation program may be active, in which badger individuals are safely captured and transported to suitable habitat outside the impact area. Trapped individuals of the above species shall be safely relocated onto on-site Sonoran creosote bush scrub and blue palo verde wash woodland habitat located in of the project site that is not planned for development. A portion of Sonoran creosote bush scrub and blue palo verde wash woodland located in the southern portion of the proposed project site will remain undeveloped upon implementation of the proposed project.

In the event that off-site habitat areas within 500 feet of grading are not accessible during preconstruction surveys, the presence of American badger shall be assumed and the entire project site boundary within 500 feet of grading activities shall be fenced to prohibit entry of badgers into the grading site. The fence shall be monitored as a regular part of construction monitoring.

The project applicant shall protect those portions of Sonoran creosote bush scrub and blue palo verde wash woodland occurring within the Open Space (Conservation) land use category through a conservation easement, deed restriction, or similar mechanism, as required by Mitigation Measure 6.4-3. This area provides suitable habitat for relocation of American badger and sufficient carrying capacity is assumed for the conserved areas.

30.EPD 012

PRIOR TO ANY PROJECT APPROVAL

SP - MITIG MEASURE 6.4-12

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-12 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), impacts resulting from project construction within the Riverside County portion of the proposed project site to special-status bird species not covered under the CVMSHCP, which include great egret, great blue heron, black-crowned night heron, double-crested cormorant, snowy egret, gull billed tern, white-faced ibis, and black skimmer, shall be mitigated through pre construction surveys for nesting individuals of these species. Such surveys may be conducted concurrently with general nesting bird surveys, discussed in Mitigation Measure 6.4-13, below, and shall follow the methodology given in Mitigation Measure 6.4-13. If construction activities on the site are proposed during the nesting/breeding season (February 1 through August 31), a pre-activity survey shall be conducted by a qualified

biologist currently holding an MOU with Riverside County prior to implementing project approval, to determine if active nests of species protected by the Migratory Bird Treaty Act (MBTA) or the California Fish and Game Code are present in the construction zone. Once the survey is complete a report shall be prepared and sent to the Environmental Programs Division for review and concurrence. If active nests are observed and located consultation with the California Department of Fish and Game (CDFG) to establish appropriate buffers will be required and the results of the report shall be submitted to CDFG for review and approval. The Environmental Programs Division will be contacted to ensure that proper CDFG approved buffers are in place prior to grading permit issuance. No grading permits will be issued until the Environmental Programs Division confirms the presence of appropriate buffers. In addition, a biological monitor will also be required to be on site during all grading activities to insure that the buffers are not compromised. At the conclusion of all grading activity, the biological monitor will submit a letter report to the Environmental Programs Division summarizing the result of the grading activity. Focused surveys for nesting individuals of these species shall be conducted in trees and shrubs and on the ground of Salton Sea shoreline habitat and arrowweed scrub adjacent to the Salton Sea that will be developed as part of project implementation or that is located within 500 feet of development areas. Because of the high mobility of non-nesting adult individuals of these species, it is expected that surveys for nesting individuals and their young, and protection for any nesting birds found, will provide the mitigation appropriate for project-related impacts.

30.EPD 013

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-13

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-13 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), proposed project construction impacts to nesting birds located in project impact areas within the Riverside County portion of the project site shall be mitigated through pre-construction nesting bird surveys and avoidance of any nesting birds found.

If construction activities on the site are proposed during the nesting/breeding season (February 1 through August 31), a pre-activity survey shall be conducted by a qualified biologist currently holding an MOU with Riverside County prior to implementing project approval, to determine if active nests of species protected by the Migratory Bird Treaty Act (MBTA) or the California Fish and Game Code are present in the construction zone. Once the survey is complete, a report shall be prepared and sent to the Environmental Programs Division for review and concurrence. If active nests are observed and located, consultation with the California Department of Fish and Game (CDFG) to establish appropriate buffers will be required and the results of the report shall be submitted to CDFG for review and approval. The Environmental Programs Division will be contacted to ensure that proper CDFG approved buffers are in place prior to grading permit issuance. No grading permits will be issued until the Environmental Programs Division confirms the presence of appropriate buffers. In addition, a biological monitor will also be required to be on site during all grading activities to insure that the buffers are not compromised. At the

conclusion of all grading activity, the biological monitor will submit a letter report to the Environmental Programs Division summarizing the result of the grading activity. Prior to grading final for each implementing project for construction or site preparation, including grubbing or grading, the applicant shall have weekly surveys conducted by a qualified biologist currently holding an MOU with Riverside County to determine if active nests of native bird species (including the special-status species discussed above) protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the construction zone or within 300 feet (500 for raptors) of the construction zone. Surveys shall take place in all habitat types containing trees, shrubs, or grasses. Because many birds known to the project area (including loggerhead shrike) nest during the late winter, breeding bird surveys shall be carried out both during the typical nesting/breeding season (mid-March through September) and in January, February, and early March for winter nesting species. The surveys shall continue on a weekly basis, with the last survey being conducted no more than three days prior to initiation of clearance or construction work. If ground-disturbing activities are delayed, then additional pre-construction surveys shall be conducted such that no more than three days will have elapsed between the last survey and the commencement of ground disturbing activities. Surveys shall include examination of trees, shrubs, and the understory, as several bird species known to the area and project site, are ground nesters, including burrowing owl, California horned lark, and mourning dove.

30.EPD 014

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-25

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-25 Prior to building final inspection (AND/OR OTHER APPROPRIATE MILESTONE), a public awareness program shall be developed by the homeowners' association (HOA), or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, to educate residents of the proposed project about impacts to biological resources resulting from increased human and domestic animal presence in the area. The public awareness program shall address the impact domestic cats have on local wildlife populations (especially birds and small mammals), to encourage pet owners to keep their cats indoors. This program shall include supplying educational information to future residents of the project site regarding the importance of preventing unleashed domestic animals from entering ecologically sensitive areas within the proposed project (Open Space [Conservation]) or areas adjacent to the project site (such as ABDSP, SRSJM National Monument, or other state or federally protected lands) and of prohibiting off-leash domestic animals from disturbing native wildlife species. The public awareness program shall specifically address potential indirect impacts to Peninsular bighorn sheep associated with human and domestic animal presence in the rocky hills and mountains. In addition, the public awareness program will include discussion of cryptobiotic soils and their role in preserving desert soils, promoting nitrogen fixation, storing atmospheric carbon, and preventing erosion by wind and water.

30.EPD 015

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-26

Status: Conditions:
INEFFECT Outstanding

PROJECT APPROVAL

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-26 Dogs and cats owned by future residents of the proposed project shall be contained within their property boundary, or shall be leashed while in areas designated Open Space-Conservation. Prior to building final inspection (AND/OR OTHER APPROPRIATE MILESTONE), the HOA, or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, shall add a prohibition to the covenants, conditions, and restrictions (CCRs) for the community against unleashed dogs and cats in areas designated Open Space-Conservation.

30.EPD 016

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-27

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-27 Prior to building final inspection (AND/OR OTHER APPROPRIATE MILESTONE), to reduce indirect impacts to wildlife remaining in the project area upon implementation of the proposed project, waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas throughout the project site. The HOA, or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, shall be responsible for maintaining these receptacles.

30.EPD 017

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-28

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-28 Prior to building final inspection (AND/OR OTHER APPROPRIATE MILESTONE), the HOA, or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, shall supply educational information to future residents of the project site regarding the importance of not feeding wildlife, ensuring that trash containing food is not accessible to wildlife, and not leaving pet food outside.

30.EPD 018

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-29

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the

implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-29 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the project applicant shall develop a lighting plan that shall be subject to approval by the Riverside County Environmental Programs Division. The plan is discussed in detail within Section 6.1, Aesthetics, of EIR00514 and incorporates dark-sky requirements for the project site area.

30.EPD 019

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-30

Status: INEFFECT Conditions: Outstanding

EIR00514 MM 6.4-30 Prior to implementing project approval, the applicant shall prepare a landscape plan for all common areas of the site in accordance with modified Tables 3-7a through 3-7f, Proposed Plant Palette, in Section 3.11, Landscape Design Guidelines, of the Travertine Point Specific Plan, which will be consistent with the Coachella Valley Native Plants Recommended for Landscaping per the CVMSHCP (Table 6.4-4). This plan shall be prepared by or approved by a qualified biologist currently holding an MOU with Riverside County, and will be subject to review by the Riverside County Environmental Programs Division. The plan shall include a plant palette composed of non-invasive species that are adapted to the conditions found on the project site, including the condition of a dry, low-rainfall climate. The landscaping plan will also include a list of invasive plant species prohibited from being planted in the common areas of the project site. Plant species included in the Prohibited Invasive Ornamental Plants per the CVMSHCP (Table 6.4-5) will be prohibited from all landscape plant palettes within 1,000 feet of the western boundary of the Travertine Point Specific Plan area. The Specific Plan landscape plant palette will exclude invasive Acacia species, fruiting Olea europaea, Phoenix canariensis, and Washingtonia robusta. Phoenix dactylifera existing on the project site, especially male trees, may be planted outside of conservation areas, a minimum distance of 1,000 feet. The HOA, or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, shall be responsible for providing the landscape plan to landscapers hired to install landscaping in common areas within the proposed project site.

30.EPD 020

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.4-31

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-31 Prior to building final inspection (AND/OR OTHER APPROPRIATE MILESTONE), the HOA, or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Division, shall supply future residents of the project site with a list of invasive plant species prohibited from being planted on the project site and with educational materials emphasizing the importance of planting noninvasive, drought-tolerant plants.

30.EPD 021

SP - MITIG MEASURE 6.4-32

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-32 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the applicant or grading contractor shall develop a plan indicating that all stockpiled soils and vegetation shall be covered daily with sheeting to prevent wind and waterborne transport of such propagules in order to discourage the transport of invasive species propagules to undeveloped on-site and off-site areas.

30.EPD 022

PRIOR TO ANY SP - MITIG MEASURE 6.4-33
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project. This language represents the minimum requirement, and therefore additional language may be added to clarify the process of implementation:

EIR00514 MM 6.4-33 Prior to the issuance of a grading permit (AND/OR OTHER APPROPRIATE MILESTONE), the applicant or grading contractor shall develop a plan indicating that all graded areas, in the event that construction activities are anticipated to be postponed for longer than one year subsequent to continued grading, shall be hydroseeded with a cover crop of locally indigenous native annual species prior to the first rainfall subsequent to the cessation of construction activity so as to discourage the growth of invasive species within disturbed areas.

30.EPD 023

PRIOR TO ANY SP - MITIG MEASURE 6.4-34
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

EIR00514 MM 6.4-34 Prior to each implementing project approval, the Riverside County Environmental Programs Division shall review the subdivision design for the proposed project. The County shall confirm that recreational trails associated with the proposed project do not lead into Open Space-Conservation areas or other environmentally sensitive areas adjacent to the project site (such as ABDSP, SRSJM National Monument, or other state or federally protected lands) to the south and west of the project site. Specifically, the County shall ensure that trails do not lead into Peninsular bighorn sheep habitat in ABDSP and the SRSJM National Monument in the rocky hills and mountains. In addition, each subdivision design shall provide a minimum 500-foot setback between ABDSP or SRSJM National Monument lands and proposed residential or commercial land uses.

30.EPD 024

PRIOR TO ANY SP - MITIG MEASURE 6.4-48
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

EIR00514 MM 6.4-48 Prior to implementing project approval, the applicant shall retain a qualified biologist currently holding an MOU with Riverside County to conduct a jurisdictional

delineation in the Riverside County portion of the project site. The jurisdictional delineation shall be submitted to the USACE and CDFG for review, and the delineation shall be certified by the USACE prior to grading final. To mitigate for impacts to jurisdictional waters, the applicant shall either recreate habitat of similar value and area or secure lands in a program that has already entered a conservation easement at a minimum of 1:1 replacement ratio by acreage to maintain equivalent habitat of suitable USACE and CDFG waters, in consultation with the permitting agency. Use of other tribal lands that are currently being considered for mitigation banking including the Torres-Martinez Desert Cahuilla Indians Wetland Project near the Whitewater River water at the north end of the Salton Sea for delivery into a freshwater wetland and into a shallow saline habitat wetland on the Torres- Martinez Reservation. As feasible, mitigation for USACE and CDFG waters may be carried out in conjunction with mitigation for potential impacts to blue palo verde wash woodland, a sensitive plant community, which is discussed in Mitigation Measure 6.4-46, above.

30.PARKS 001

PRIOR TO ANY PROJECT APPROVAL
SP - SP TRAILS PLAN

Status: INEFFECT
Conditions: Outstanding

PRIOR TO THE APPROVAL OF ANY PROJECT (TENTATIVE MAP, USE PERMIT, AND/OR CHANGE OF ZONE):

The applicant is required to submit a trails plan for the project to the Riverside County Regional Park and Open-Space District for review and approval prior to project approval. The plan is to show an internal trail network and all connections to both the County of Riverside and County of San Diego trails systems and surrounding cities. It is provide typical cross sections for proposed development.

The applicant and its representative is advised to coordinate a meeting with the Planning staff at the Regional Park and Open-Space District to review trails and trail standards. The District's phone number is 951.955.4310

30.PLANNING 001

PRIOR TO ANY PROJECT APPROVAL
MM - TRIBAL MOU

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the applicant shall secure a Memorandum of Understanding (MOU) between (a) the applicat, Riverside County, and the Torres Martinez Desert Cahuilla Indians (TMDCI) and (b) the applicant, Imperial County, and the TMDCI to address issues relating to tribal involvement on the properties within the boundaries of the specific plan and the application of EIR mitigation measures for the entire project site.

The MOU shall, at a minimum, include:

- a. a tax-sharing arrangement between each County and the TMDCI;
- b. assurances that drainage can and will be maintained across tribal land in perpetuity;
- c. assurances that conservation easements can and will be maintained on tribal land in perpetuity;

d. assurances that the roads and circulation through tribal land will remain open to the public;

e. assurances that the land uses on tribal land will remain compatible with those areas in each County areas surrounding the tribal land;

f. permission to perform studies, including but not limited to, health risk assessments and biological surveys to ensure that public health and safety are maintained;

g. that proposed mitigations that involve tribal lands shall be permitted and implemented on all land within the project site; and

h. a limited waiver of sovereign immunity by the TMDCI sufficient to ensure that each County has an adequate legal remedy with respect to enforceability of the above items.

30.PLANNING 002

PRIOR TO ANY PROJECT APPROVAL MM - WASTE MGMT MOU (1)

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN, the County of Riverside Waste Management Department and the applicant shall enter into a Memorandum of Understanding (MOU) regarding the entire 166.6-acre County owned property, which includes the Oasis Landfill (two parcels consisting of APN 737-240-003 consisting of 161 acres and APN 737-200-032 consisting of 5.6 acres, and also referred as Planning Areas 2-18 and 2-19 of the SPECIFIC PLAN). If a portion of the 166.6 acre aforementioned property is not used as a regional style park, an amendment to the SPECIFIC PLAN shall be filed to specify an alternate location for a regional style park.

The Oasis Landfill shall remain open and active until Riverside County decides in its discretion to close the Oasis Landfill. The applicant shall use approximately 116.6 acres of the Oasis Landfill site as a future regional style park or other related uses (e.g., drainage). If the Oasis Landfill is to be used as a park site or otherwise developed, a formal agreement must be entered into between Riverside County and applicant or their successors and assigns, allowing for development of the 116.6-acre site for the use proposed by the applicant.

The MOU shall, at a minimum:

a. provide that approximately 50 acres of the Oasis Landfill site within the 161-acre parcel (APN 737-240-003), including the 23 acres currently permitted and used for solid waste disposal, will remain owned by the Riverside County Waste Management Department (the 50-acre site);

b. specify applicant's obligation to provide replacement off-site acreage (in fee simple title), for the 116.6 acres of non-landfill acreage owned by the County within the project site (i.e., SPECIFIC PLAN Planning Area 2-18 and the 166.6 acres owned by the County less the 50 acre site for the Oasis Landfill), in an acreage amount and location acceptable to the Riverside County Waste Management Department. The acreage amount shall not exceed 116.6 replacement acres. Other financial arrangements acceptable to the Riverside County may also be made in lieu of providing 116.6 replacement acres to the County;

c. specify the amount and timing of applicant's obligations, if any, with respect to funding the Box Canyon/State Highway 195 realignment and securing any and all necessary right-of-way approvals for such realignment;

d. provide that the applicant shall be responsible for mitigating the land use compatibility impacts associated with developing the SPECIFIC PLAN area and shall fund all mitigation costs necessary to make development activities compatible with adjacent Oasis Landfill (including, but not limited to screening, enhanced security, and enhanced environmental monitoring);

e. provide that applicant shall convey easements to the County sufficient to allow for the County's environmental monitoring/control activities within areas adjacent to the Oasis Landfill site;

f. provide that the Riverside County Waste Management Department and Riverside County is defended and indemnified for any liabilities arising out of applicant's activities on the 116.6 acre site;

g. provide that Riverside County Waste Management Department shall continue to be responsible for all monitoring and maintenance activity on the 50-acre site.

In the event that the Developer and/or the County elects not to enter into an MOU, then a Specific Plan Amendment shall be filed that shall, at a minimum, remove the 166.6-acre County owned land from the SPECIFIC PLAN, identify an alternative regional park location within the SPECIFIC PLAN, revise the Land Use Plan to reflect the new park site, and revise all other aspects of the SPECIFIC PLAN to accommodate the new park site. Any revised CEQA documentation shall also be completed with the Specific Plan Amendment.

30.PLANNING 003

PRIOR TO ANY PROJECT APPROVAL MM - WASTE MGMT MOU (2)

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Prior to the issuance of any grading permits within the Specific Plan boundaries, a clearance letter shall be obtained from the Riverside County Waste Management Department (RCWMD) indicating that the applicant is in substantial conformance with the terms of the Landfill MOU specified in condition of approval 30.PLANNING.2, to the satisfaction of RCWMD."

30.PLANNING 004

PRIOR TO ANY PROJECT APPROVAL SP - MASTER CULTURAL RES PLAN

Status: INEFFECT
Conditions: Outstanding

The following policies and implementation measures comprise the Master Cultural Resources Plan for SP 375 - Travertine Point Specific Plan and any descendant or implementing projects

within the specific plan boundaries.

Cultural Resources Policy 1: To actively pursue a comprehensive survey program for the entire 4,918-acre project area to identify, document, and protect, if feasible, prehistoric and historical archaeological sites, and sites containing Native American human remains.

Implementation Measure 1-1: the proposed Project would be covered under the CEQA Guidelines (California 2005) or Section 106 of the National Historic Preservation Act (NHPA), and shall be surveyed by a professional who is registered with the County of Riverside for those areas within Riverside County, and acceptable to Imperial County and/or the Bureau of Indian Affairs for those project areas under those jurisdictions, regarding archaeological activities and methods prior to the County's approval of proposed Project plans (48 CFR 44716-44742).

Implementation Measure 1-2: All archaeological site location data collected during the cultural resources surveys shall be considered to be of a sensitive nature and must remain confidential. Caution must be exercised when disseminating this information; in particular, maps and site location data should be made available only to managers, County officials, federal officials, and other professionals on a demonstrated need to know basis.

Implementation Measure 1-3: For potentially significant prehistoric archaeological resources or sites containing Native American human remains identified during the Project's archaeological surveys, the Project proponent, or their designee or successors, shall continue consultation with the Native American Heritage Commission (NAHC) in Sacramento and interested Native American individuals and organizations.

Cultural Resources Policy 2: To avoid impacts to potentially significant prehistoric and historical archaeology resources and sites containing Native American human remains, where feasible.

Implementation Measure 2-1: If Cultural resources avoidance is feasible, potentially significant archaeological resources and sites containing Native American human remains shall be placed within permanent Project-specific conservation easements or dedicated open space-conservation areas.

Implementation Measure 2-2: Where avoidance of archaeological resources and sites containing Native American human remains is not a feasible management option, capping these resources with sterile sediments and avoidance planting (e.g. planting of cactus, mesquite, or other Native plants) shall be considered the next most favorable management option. In doing so, capping the resource(s) will ensure that direct impacts from increased public availability to these sites are avoided. Site CA-RIV-8895 (33-17086) deep sediments may contain intact subsurface cultural deposits below the zone of disturbance. If this site cannot be avoided during project development, Phase II Testing and Evaluation is required to ascertain site integrity, data potential, and significance.

Site CA-RIV-8896 (33-17087) - If this site cannot be avoided during project development, Phase II testing is required to ascertain site integrity, data potential, and significance.

Site CA-IMP-8784 (13-009821) - If this site cannot be avoided during project development, Phase II testing is required to ascertain site integrity, data potential, and significance, in accordance with the standards of Imperial County.

Site CA-IMP-8785 (13-009822) - If this site cannot be avoided during project development, Phase II testing is required to ascertain site integrity, data potential, and significance, in accordance with the standards of Imperial County.

Site CA-IMP-8786 (13-009823) - this site consists of several interconnecting segments of a prehistoric aboriginal trail system that may be part of the "Northwest Santa Rosa Trail". Consultation with the participating Native American tribes is required to complete a determination for significance. Pending that consultation, this site is determined to be significant, in accordance with the standards of Imperial County.

Site CA-IMP-33 - Travertine Rock - This is a significant site and avoidance is strongly recommended, in accordance with the standards of Imperial County. This site shall be formally nominated as a Traditional Cultural Property (TCP) and to the National Register of Historic Places, if it has not already been listed, in accordance with the standards of Imperial County.

Site CA-IMP-92 - This site shall be tested to ascertain site integrity, data potential, and site significance if it cannot be avoided during project development, in accordance with the standards of Imperial County.

Site CA-IMP-100 - This site shall be tested to ascertain site integrity, data potential, and site significance if it cannot be avoided during project development, in accordance with the standards of Imperial County.

Site CA-IMP-2626 - If this site cannot be avoided during project development, Phase II Testing and Evaluation is recommended to ascertain site integrity, data potential, and significance, in accordance with the standards of Imperial County.

Site CA-RIV-1525 - This site contained the largest aggregate of fish traps yet found in the Coachella Valley, however much of the site was destroyed by agriculture and land clearing by the applicant. Extant portions of the site may be eligible for listing on the National Register of Historic Places, and further evaluation is required prior to any implementing project approval within the site area. Portions of the site located on the tribal lands of the Torres-Martinez Desert Cahuilla Indians should be preserved in perpetuity.

Cultural Resources Policy 3: To reduce adverse impacts to significant archaeological resources

that cannot be protected in place through data recovery excavations.

Implementation Measure 3-1: If avoidance and/or preservation in place of known prehistoric and historical archaeological resources is not a feasible management option, the Project proponent or his/her successors, shall ensure that potentially significant archaeological resource(s), and site(s) shall be investigated pursuant to the standards, guidelines, and principles of the Advisory Council's Treatment of Archaeological Properties: A Handbook (ACHP 1980), except where any existing policies or guidelines adopted by the County of Riverside, County of Imperial, and/or Bureau of Indian Affairs differ.

Prior to the issuance of a Project-related grading permit, the Projects' proponent's consultant, registered with the County of Riverside and/or who meets the professional requirements of the County of Imperial or the Bureau of Indian Affairs, shall use the Project's Research Design detailed in Chapter 6 of the Phase I Cultural Resources report prepared by Applied Earthworks, dated April 2008, to guide the implementation of a Phase II Testing and Evaluation Program. In general terms, the Phase II Testing and Evaluation Program shall be designed to further define site boundaries and to assess the structure, content, nature, and depth of subsurface cultural deposits and features. Emphasis shall also be placed on assessing site integrity and the site's potential to address regional archaeological research questions. These data shall then be used to address the NRHP/CRHR eligibility requirements for the archaeological resource, and make recommendations as to the suitability of the resource for listing on either the national or state register of sites.

After approval of the Project's various cultural resources reports by the appropriate County and/or Bureau of Indian Affairs and prior to issuance of Project-related grading permits, the Project proponent's consultant shall complete the Phase II Testing Program as specified in the Project Phase II Testing and Evaluation Proposal and Research Design and prior to the issuance of a Project grading permit. The results of this Phase II Testing Program shall be presented in a technical report that follows the report requirements of the County of Riverside and/or the County of Imperial or the Bureau of Indian Affairs. The Phase II Report shall be submitted to the Lead Agency's Planning Department for review and comment and the Torres-Martinez Desert Cahuilla Indians prior to the issuance of a Project-related grading permit. If the resource is determined to be ineligible for listing on the NRHP/CRHR upon completion of the Phase II Testing Program, no further cultural resources management of this resource would be required.

Implementation Measure 3-2: A participant-observer(s) from the Torres-Martinez Desert Cahuilla Indians shall be present during Phase II archaeological excavations involving all sites of Native American concern.

Implementation Measure 3-3: If the cultural resource is identified as being potentially eligible for listing on either NRHP and CRHR, and Project designs cannot be altered to avoid impacting the site, a Phase III Data Recovery Program to mitigate project effects shall be initiated. A Data Recovery Treatment plan detailing the objectives of the Phase III Program shall be developed and contain specific testable hypotheses pertinent to the project's Research Design and relative to the site(s) under study. The Phase III Data Recovery Treatment Plan shall be submitted to the County's Planning Department, the Torres-Martinez Desert Cahuilla Indians, if applicable, and

the State Historic Preservation Office (SHPO) for review and comment prior to implementation of the Data Recovery program.

After Approval of the Treatment Plan, the Phase III Data Recovery Program for affected, eligible site(s) shall be completed. Typically, a Phase III Data Recovery Program involves the excavation of a statistically representative sample of the site(s) as being eligible for listing on the National Register of Historic Places of the California Register of Historic Resources. Again, participant-observer(s) from the Torres-Martinez Desert Cahuilla Indians shall be present during archaeological data-recovery excavations involving sites of Native American concern. At the conclusion of the Phase III Program, a Phase III Data Recovery Report shall be prepared, fulfilling the report requirements of the County of Riverside, County of Imperial, and/or the Bureau of Indian Affairs, as applicable. The Phase III Data Recovery Report shall be submitted to the County's Planning Department, the Torres-Martinez Desert Cahuilla Indians, if applicable, and the BIA and SHPO for review and comment prior to the issuance of a Project grading permit.

Implementation Measure 3-4: All archaeological materials recovered during implementation of the Project's Phase II Testing or Phase III Data Recovery programs shall be processed, including cleaning and cataloguing, detailed description, and analyses, as appropriate. Following completion of laboratory and analytical procedures, all Project-related collections shall be suitably packaged and transferred to a curation facility that meets the standards of 36 CFR 79 for long-term storage. Materials to be curated include archaeological specimens and samples, field notes, feature and burial records, maps, plans, profile drawings, photo logs, photographic negatives, consultant's reports of special studies, and copies of the final technical reports.

It should be noted that provisions of the Native American Graves Repatriation Act (NAGPRA) pertaining to Native American burials, sacred objects, and objects of cultural patrimony would come into effect when archaeological materials are recovered from lands owned by the Torres-Martinez Desert Cahuilla Indians and managed by the BIA. As well, NAGPRA would also apply when ownership of the collections from anywhere within the Travertine Point Specific Plan study area transfer to a curation repository that received federal funding. Should the Torres-Martinez Band of Desert Cahuilla Indians request repatriation of cultural materials from non-federal lands within the Specific Plan, those materials shall be repatriated upon submittal of the Phase IV Archaeological Monitoring Report to the County Archaeologist. This report shall follow the report format posted on the TLMA website for Phase IV work.

Cultural Resources Policy 4: To ensure proper identification and treatment of cultural resources discovered during Project development and construction.

Implementation Measure 4-1: Registered professional archaeologists and culturally affiliated Native Americans, with knowledge in cultural resources, shall monitor all Project-related ground-disturbing activities that extend into natural sediments or other land forms in areas determined to have high archaeological sensitivity for prehistoric resources.

Prior to the County-permitted Project, the Project proponent shall include in their Mitigation Plan

provisions for the identification and evaluation of archaeological resources inadvertently discovered during construction. Thus, if buried archaeological resources are uncovered during construction, all work shall be halted in the vicinity of the archaeological discovery until a registered professional archaeologist can visit the site of discovery and evaluate the significance of the archaeological resource.

Implementation Measure 4-1a: Registered professional archaeologists experienced in historical archaeological resources shall monitor all Project-related ground-disturbing activities that extend into natural sediments or other land forms in areas determined to have high archaeological sensitivity for historical resources.

Implementation Measure 4-2: If the archaeological resource is determined to be a potentially significant cultural resource, the Project proponent's Mitigation Plan shall include provisions for the preparation and implementation of a Phase III Data Recovery Program, as well as disposition of recovered artifacts, in accordance with Cultural Resource Policy 3, Implementation Measure 4, above.

Implementation Measure 4-3: In the event of an accidental discovery of any human remains in a location other than a dedicated cemetery on privately-owned or State-owned land, the steps and procedures specified in Health and Safety Code Subsection 7050.5, State CEQA Guidelines 15064.5(d), and Public Resources Code Subsection 5097.98 shall be implemented. Specifically, in accordance with Public Resources Code Subsection 5097.98, the Riverside County Coroner shall be notified within 24 hours of the discovery of potentially human remains. The Coroner shall then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with PRC Subsection 5097.98. The NAHC shall then designate a Most Likely Descendant (MLD) with respect to the human remains within 48 hours of notification.

The MLD shall then have the opportunity to recommend to the Project proponent means for treating or disposing with appropriate dignity, the human remains and associated grave goods within 24 hours of notification. Whenever the NAHC is unable to identify an MLD, or the MLD fails to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the MLC and the mediation provided for in subdivision (k) of the PRC SS 5097.94 fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

It should be noted that in the event that Native American human remains are inadvertently discovered during the County-permitted, Project-related construction activities, there would be unavoidable significant adverse impacts to these resources. Implementation of the Cultural Resources Policies 1, 2 and 3 and their corresponding implementation measures would, however, reduce impacts to other types of archaeological resources to a level that is less than significant.

Implementation Measure 4-4: The treatment and management of potential Traditional Cultural

Properties (TCPs) identified with the Travertine Point Specific Plan study area shall be conducted through extensive consultation with concerned Native American groups and organizations. These consultation efforts shall be conducted utilizing the County of Riverside's SB 18 consultation process, or those employed by the County of Imperial, as appropriate.

Cultural Resources Policy 5: To ensure that the Project proponent shall bear all costs associated with cultural resources management within the County's jurisdiction. Implementation Measure 5-1: The Project proponent shall bear all expenses related to the identification, evaluation, and treatment of cultural resources directly or indirectly affected by Project-related construction activity. Such expenses may include, pre-field planning, field work, post field analyses, research, interim and summary report preparation, and final report production (including draft and final versions), and costs associated with the curation of project documentation and the associated artifact collections.

Implementation Measure 5-2: On behalf of the County and the Project proponent, the final technical reports detailing the results of the Phase II Testing or Phase III Data Recovery programs shall be submitted to the appropriate Archaeological Information Centers of the California Historical Resources Inventory System for their information and where they would be available to other researchers. As well, final Phase III Data Recovery Reports shall be submitted to local libraries, schools, participating tribes, and historical societies to enable the general public to learn about their local cultural heritage.

Implementation Measure 5-3: Phase IV Archaeological Monitoring Reports shall be submitted prior to final inspection for each permitted project within the specific plan. Every grading permit subject to archaeological monitoring shall result in a Phase IV report submitted to the County Archaeologist and/or BIA.

Cultural Resources Policy 6- Directives for specific cultural resources sites known as of September 18, 2008, pursuant to the recommendations from the Phase I Cultural Resources report prepared for this specific plan by Applied Earthworks, April 2008:

Site AE-TRV-1H - preliminary significance evaluation determines that this site is potentially significant resource as it has been an important source of fresh water to enable the settlement and agricultural development of this portion of the Coachella Valley for the past 70 years.

Site CA-RIV-8891 (33017082) - if this site cannot be avoided during project development, Phase II Testing and Evaluation is recommended to ascertain site integrity, data potential, and significance.

Site CA-RIV-8892/H (33-17083) - The data potential was realized during site recordation and archival research, therefore no further management of this resource is recommended.

Site CA-RIV-8893/H (33-17084) - The data potential was realized during recordation and archival research, therefore no further management of this resource is recommended.

Site CA-RIV-8894 (33-17085) - The site is located within an alluvial, depositional environment

with undetermined soil depth, and there is some potential for intact subsurface cultural deposits beneath the zone of mechanical disturbance. If this site cannot be avoided during the project development, Phase II Testing and Evaluation is recommended to ascertain site integrity, data potential, and significance.

Site CA-RIV-8895 (33-17086) deep sediments may contain intact subsurface cultural deposits below the zone of disturbance. If this site cannot be avoided during project development, Phase II Testing and Evaluation is required to ascertain site integrity (33-17086) - The potentially s

30.PLANNING 007

PRIOR TO ANY PROJECT APPROVAL SP - GEOLOGIC STUDY

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project and satisfied prior to scheduling that project for public hearing:

"PRIOR TO SCHEDULING THIS PROJECT FOR A PUBLIC HEARING/ACTION, THE FOLLOWING SPECIAL GEOLOGIC STUDIES SHALL BE SUBMITTED TO AND APPROVED BY THE COUNTY GEOLOGIST:

A geologic/geotechnical investigation report. The investigation shall address geologic hazards including, but not necessarily limited to, slope stability, rock fall hazards, landslide hazards, surface fault rupture, fissures, liquefaction potential, collapsible and/or expansive soils, subsidence, wind and water erosion, debris flows, and groundshaking potential. For completeness and direct correlation to the proposed project, the consultant shall be provided the most recent copy of the project case exhibit (tract map, parcel map, plot plan, CUP, etc.) for incorporation into the consultant's report. Furthermore, the consultant shall plot all appropriate geologic and geotechnical data on this case exhibit and include it as an appendix/figure/plate in their report. The geologic/geotechnical investigation report shall be reviewed and approved by the County Engineering Geologist prior to scheduling this case for a public hearing.

Note: acquisition of a County geologic report (GEO) number and submittal of review fees is required (DBF to be determined). All reports (2 wet-signed original copies), Planning Geologic Report application (case sub-type GEO3) and deposit base fee payment should be submitted, in person by the applicant or his/her representative, at one of the County's two main offices (Riverside, Palm Desert). These items should be submitted at the Land Use counter. Reports and payment should not be given to the Planner or County Geologist directly.

The applicant and their consultant should also be aware that County Ordinance 457.98 requires a grading permit for any exploratory excavations consisting of 1000 cubic yards or greater in any one location of one acre or more. This applies to all trenching, borings and any access road clearing/construction that may be necessary."

30.PLANNING 008

PRIOR TO ANY PROJECT APPROVAL SP - M/M PROGRAM (GENERAL)

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map,

parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The EIR prepared for the SPECIFIC PLAN imposes specific mitigation measures and monitoring requirements on the project. Certain conditions of the SPECIFIC PLAN and this implementing project constitute reporting/monitoring requirements for certain mitigation measures."

30.PLANNING 012

PRIOR TO ANY PROJECT APPROVAL SP - PROJECT LOCATION EXHIBIT

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The applicant shall provide to the Planning Department an 8 1/2" x 11" exhibit showing where in the SPECIFIC PLAN this project is located. The exhibit shall also show all prior implementing projects within the SPECIFIC PLAN that have already been approved.

This condition shall be considered MET once the applicant provides the Planning Department with the required information. This condition may not be DEFERRED."

30.PLANNING 019

PRIOR TO ANY PROJECT APPROVAL SP - EA REQUIRED

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementation project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"If this implementing project is subject to the California Environmental Quality Act (CEQA), an environmental assessment shall be filed and processed concurrently with this implementing project. At a minimum, the environmental assessment shall utilize the evaluation of impacts addressed in the EIR prepared for the SPECIFIC PLAN.

This condition shall be considered as MET if an environmental assessment was conducted for this implementing project. This condition may be considered as NOT APPLICABLE if this implementing project is not subject to CEQA. This condition may not be DEFERRED."

30.PLANNING 020

PRIOR TO ANY PROJECT APPROVAL SP *- ADDENDUM EIR

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that no new environmental impacts have arisen since the certification of

the EIR. Although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN as a whole, more detailed technical information (i.e. traffic studies, updated biological studies, etc.) have been required by the Planning Department and/or other COUNTY land development review departments in order to complete its environmental review. Therefore, an ADDENDUM to the previously certified EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if an ADDENDUM to the EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if an ADDENDUM to the EIR is not required."

30.PLANNING 021

PRIOR TO ANY PROJECT APPROVAL SP *- SUPPLEMENT TO EIR

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN at the time, new environmental impacts have arisen since the certification of the original EIR. The Planning Department has determined that the new environmental impacts can be mitigated to below a level of significance. Therefore, a SUPPLEMENT to the previously certified EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if a SUPPLEMENT to the EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if a SUPPLEMENT to the EIR is not required."

30.PLANNING 022

PRIOR TO ANY PROJECT APPROVAL SP *- SUBSEQUENT EIR

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN at the time, new environmental impacts have arisen since the certification of the original EIR. The Planning Department has determined that this implementing project may have a significant impact to the new environmental impacts that have arisen. Therefore, a SUBSEQUENT EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if a SUBSEQUENT EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if a SUBSEQUENT to

the EIR is not required."

30.PLANNING 023

PRIOR TO ANY PROJECT APPROVAL SP - COMPLETE CASE APPROVALS

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project (tract map, parcel map, use permit, plot plan, etc.) the SPECIFIC PLAN, the GPA, the CHANGE OF ZONE, and the EIR must have been approved, adopted, and certified by the Board of Supervisors, respectively.

This condition shall be considered as MET once the SPECIFIC PLAN, the GPA, the CHANGE OF ZONE, and the EIR have been approved, adopted, and certified by the Board of Supervisors, respectively. This condition may not be DEFERRED.

30.PLANNING 024

PRIOR TO ANY PROJECT APPROVAL SP - AMENDMENT REQUIRED

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"If this implementing project meets any of the following criteria, an amendment to the SPECIFIC PLAN shall be required and processed concurrently with this implementing project:

1. The implementing project adds any area to, or deletes area from, the SPECIFIC PLAN;
2. The implementing project proposes a substantially different use than currently allowed in the SPECIFIC PLAN (i.e. proposing a residential use within a commercially designated area); or
3. as determined by the Planning Director.

Any amendment to the SPECIFIC PLAN, even though it may affect only one portion of the SPECIFIC PLAN, shall be accompanied by a complete specific plan document which includes the entire specific plan, including both changed and unchanged parts.

This condition shall be considered MET if the specific plan amendment has been filed, and NOT APPLICABLE if a specific plan amendment is determined to be unnecessary."

30.PLANNING 025

PRIOR TO ANY PROJECT APPROVAL SP - PARK AGENCY REQUIRED

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing land division project within the SPECIFIC PLAN (i.e. tract map, or parcel map), the following condition shall be placed on the implementing project:

"PRIOR TO MAP RECORDATION of any subdivision, or other residential development application, all portions of this implementing project not currently within the boundaries of the Desert Recreation District (DRD), shall be annexed into the DRD or a similar entity such as a County Service Area/District that has been designated by the Board of Supervisors, pursuant to Section 10.35(G) of Ordinance No. 460, to receive park dedications and fees. Documentation of

said annexation shall be provided to the Planning Department.

This condition shall be considered as NOT APPLICABLE if the DRD, or similar entity, is unwilling or unable to annex the property in question."

30.PLANNING 026

PRIOR TO ANY SP - AG/DAIRY NOTIFICATION
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing residential land division within the SPECIFIC PLAN, and within one half mile of existing agricultural uses, the following condition of approval shall be applied to the implementing project stating that:

"PRIOR TO MAP RECORDATION, the applicant shall submit a detailed proposal for the notification of all initial and future purchasers of dwelling units within the subject project of the existence of dairies and/or other agricultural uses within one half mile of the subject property (both within and external to the SPECIFIC PLAN) and potential impacts resulting from those uses. Said notification shall be in addition to any notice required by Ordinance No. 625 (Riverside County Right-to-Farm Ordinance). Said approved notification shall be provided to all initial and all future purchasers of dwelling units within the subject project as long as proximal agricultural uses continue."

30.PLANNING 027

PRIOR TO ANY SP *- PA PROCEDURES
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map or parcel map), the following condition shall be placed on the implementing project PRIOR TO MAP RECORDATION in the case of land division applications (tentative parcel maps or tentative tract maps) or PRIOR TO BUILDING PERMITS in the case of use permit applications (plot plans, conditional use permits, or public use permits):

"The planning area[s] for which this land division application is located must be legally defined. Any of the following procedures may be used in order to legally define this [these] planning area[s]:

1. The project proponent has processed a FINAL CHANGE OF ZONE MAP concurrent with the SPECIFIC PLAN which legally defined this [these] planning area[s]. 2. The project proponent shall file a change of zone application along with a legal description defining the boundaries of the planning area affected by this land division application. The applicant will not be changing the allowed uses or standards within the existing zone but will merely be providing an accurate legal description of the affected planning area. The change of zone shall be approved and adopted by the Board of Supervisors."

30.PLANNING 028

PRIOR TO ANY SP *- CC&R RES PUB COMMON AREA
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing land division project (i.e. tract map or parcel map), the following condition shall be applied to the land division PRIOR TO MAP RECORDATION if the permanent master maintenance organization referenced in the condition entitled "SP -

Common Area Maintenance" is a public organization:

"The applicant shall convey to the County fee simple title, to all common open space areas, free and clear of all liens, taxes, assessments, leases (recorded or unrecorded) and easement, except those easements which in the sole discretion of the County are acceptable. As a condition precedent to the County accepting title to such areas, the applicant shall notify the Planning Department that the following documents shall be submitted to the Office of the County Counsel and submit said documents for review along with the current fee, which shall be subject to County Counsel approval:

1. A cover letter identifying the project for which approval is sought;
2. A signed and notarized declaration of covenants, conditions and restrictions;
3. A sample document, conveying title to the purchaser, of an individual lot or unit which provides that the declaration of covenants, conditions and restrictions is incorporated therein by reference; and,
4. A deposit equaling three (3) hours of the current hourly fee for Review of Covenants, Conditions and Restrictions established pursuant to County Ordinance No. 671 at the time the above referenced documents are submitted for County Counsel review.

The declaration of covenants, conditions and restrictions submitted for review shall a) provide for a minimum term of 60 years, b) provide for the establishment of a property owners' association comprised of the owners of each individual lot or unit as tenants in common, and c) contain the following provisions verbatim:

"Notwithstanding any provision in this Declaration to the contrary, the following provisions shall apply:

The property owners' association established herein shall, if dormant, be activated, by incorporation or otherwise, at the request of the County of Riverside, and the property owners' association shall unconditionally accept from the County of Riverside, upon the County's demand, title to all or any part of the 'common area', more particularly described on Exhibit '____' attached hereto. Such acceptance shall be through the president of the property owner's association, who shall be authorized to execute any documents required to facilitate transfer of the 'common area'. The decision to require activation of the property owners' association and the decision to require that the association unconditionally accept title to the 'common area' shall be at the sole discretion of the County of Riverside.

In the event that the 'common area', or any part thereof, is conveyed to the property owners' association, the association, thereafter, shall own such 'common area', shall manage and continuously maintain such 'common area', and shall not sell or transfer such 'common area' or any part thereof, absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. The property owners' association shall have the right to assess the owner of each individual lot or unit for the reasonable cost of maintaining such

'common area', and shall have the right to lien the property of any such owner who defaults in the payment of a maintenance assessment. An assessment lien, once created, shall be prior to all other liens recorded subsequent to the notice of assessment or other document creating the assessment lien.

This declaration shall not be terminated, 'substantially' amended, or property deannexed therefrom absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. A proposed amendment shall be considered 'substantial' if it affects the extent, usage or maintenance of the 'common area' established pursuant to this Declaration.

In the event of any conflict between this Declaration and the Articles of Incorporation, the Bylaws, or the property owners' association Rules and Regulations, if any, this Declaration shall control."

Once approved by the Office of County Counsel, the declaration of covenants, conditions and restrictions shall be recorded by the Planning Department with one copy retained for the case file, and one copy provided to the County Transportation Department - Survey Division."

30.PLANNING 029

PRIOR TO ANY PROJECT APPROVAL SP *- CC&R RES PRI COMMON AREA Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing land division project within the SPECIFIC PLAN (tract map or parcel map), the following condition shall be placed on the implementing project PRIOR TO MAP RECORDATION if the permanent master maintenance organization referenced in the condition entitled "SP - Common Area Maintenance" is a private organization:

"The applicant shall notify the Planning Department that the following documents shall be submitted to the Office of County Counsel and submit said documents for review along with the current fee, which shall be subject to County Counsel approval:

1. A cover letter identifying the project for which approval is sought;
2. A signed and notarized declaration of covenants, conditions and restrictions;
3. A sample document, conveying title to the purchaser of an individual lot or unit, which provides that the declaration of covenants, conditions and restrictions is incorporated therein by reference; and,
4. A deposit equaling three (3) hours of the current hourly fee for Review if Covenants, Conditions and Restrictions established pursuant to County Ordinance No. 671 at the time the above referenced documents are submitted for County Counsel review.

The declaration of covenants, conditions and restrictions submitted for review shall a) provide for a minimum term of 60 years, b) provide for the establishment of a property owners' association comprised of the owners of each individual lot or unit as tenants in common, c) provide for ownership of the common area by either the property owners' association or the

owners of each individual lot or unit as tenants in common, and (d) contain the following provisions verbatim:

"Notwithstanding, any provision in this Declaration to the contrary, the following provisions shall apply:

The property owners' association established herein shall manage and continuously maintain the 'common area', more particularly described on Exhibit '___', attached hereto, and shall not sell or transfer the 'common area' or any part thereof, absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest.

The property owners' association shall have the right to assess the owners of each individual lot or unit for the reasonable cost of maintaining such 'common area' and shall have the right to lien the property of any such owner who defaults in the payment of a maintenance assessment. An assessment lien, once created, shall be prior to all other liens recorded subsequent to the notice of assessment or other document creating the assessment lien.

This Declaration shall not be terminated, 'substantially' amended, or property deannexed therefrom absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. A proposed amendment shall be considered 'substantial' if it affects the extent, usage or maintenance of the 'common area' established pursuant to this Declaration.

In the event of any conflict between this Declaration and the Articles of Incorporation, the Bylaws, or the property owners' association Rules and Regulations, if any, this Declaration shall control."

Once approved by the Office of County Counsel, the declaration of covenants, conditions and restrictions shall be recorded the Planning Department with one copy retained for the case file, and one copy provided to the County Transportation Department - Survey Division."

30.PLANNING 031

PRIOR TO ANY SP - PALEO M/M PROGRAM
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall enter into an agreement with a qualified paleontologist. This agreement shall include, but not be limited to, the preliminary mitigation and monitoring procedures to be implemented during the process of grading. A copy of said agreement shall be submitted to the Planning Department. No grading permits will be issued unless the preliminary mitigation and monitoring procedures as described in the EIR are substantially complied with."

30.PLANNING 032

PRIOR TO ANY SP - GENERIC M/M PROGRAM
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall provide to the Planning Department a detailed proposal for complying with the preliminary mitigation and monitoring procedures described in the EIR for the process of grading. Grading permits will not be issued unless the preliminary mitigation and monitoring procedures as described in the EIR are substantially complied with."

30.PLANNING 033

PRIOR TO ANY PROJECT APPROVAL SP - F&G CLEARANCE

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e. tract map, parcel map, use permit, plot plan, etc.) which may propose grading or construction within or along the banks of any blue-lined stream, the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the applicant shall obtain written notification to the County Planning Department that the appropriate California Department of Fish and Game notification pursuant to Sections 1601/1603 of the California Fish and Game Code has taken place, or obtain an "Agreement Regarding Proposed Stream or Lake Alteration" (Sections 1601/1603 Permit) should any grading or construction be proposed within or along the banks of any natural watercourse or wetland, located either on-site or any required off-site improvement areas. Copies of any agreement shall be submitted with the notification."

30.PLANNING 034

PRIOR TO ANY PROJECT APPROVAL SP - ACOE CLEARANCE

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e. tract map, parcel map, use permit, plot plan, etc.) which may propose grading or construction within or along the banks of any blue-lined stream which is determined to be within the jurisdiction of the United States Army Corps of Engineers, the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the applicant shall obtain written notification to the County Planning Department that the alteration of any watercourse or wetland, located either on-site or on any required off-site improvement areas, complies with the U.S. Army Corps of Engineers Nationwide Permit Conditions, or obtain a permit under Section 404 of the Clean Water Act should any grading or construction be proposed within or along the banks of any natural watercourse or wetland. Copies of any agreement shall be submitted with the notification."

30.PLANNING 036

PRIOR TO ANY PROJECT APPROVAL SP - POST GRADING REPORT

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the

implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMITS, the project applicant shall provide to the Planning Department a post grading report. The report shall describe how the mitigation and monitoring program as described in the EIR and pre-grading agreement with the qualified archaeologist/paleontologist/other were complied with."

30.PLANNING 037

PRIOR TO ANY SP - SCHOOL MITIGATION
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO BUILDING PERMITS, impacts to the Coachella Valley Unified School District shall be mitigated in accordance with state law."

30.PLANNING 038

PRIOR TO ANY SP - ARCHAEOLOGIST RETAINED
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any land division or development permit (use permit, plot plan, etc.), a condition of approval shall be applied to the land division or development permit to ensure that the unique archaeological resources identified in the Cultural Resources Report prepared as part of this Specific Plan's environmental documentation have been adequately addressed. The condition shall read as follows:

Prior to the issuance of grading permits, a qualified archaeologist shall be retained by the land divider for consultation and comment on the proposed grading with respect to potential impacts to unique archaeological resources. Should the archaeologist, after consultation with the appropriate Native American tribe, find the potential is high for impact to unique archaeological resources (cultural resources and sacred sites), a pre-grading meeting between the archaeologist, a Native American observer, and the excavation and grading contractor shall take place. During grading operations, when deemed necessary in the professional opinion of the retained archaeologist (and/or as determined by the Planning Director), the archaeologist, the archaeologist's on-site representative(s) and the Native American Observer shall actively monitor all project related grading and construction and shall have the authority to temporarily divert, redirect, or halt grading activity to allow recovery of unique archaeological resources. Prior to the issuance of grading permits, the NAME, ADDRESS and TELEPHONE NUMBER of the retained archaeologist shall be submitted to the Planning Department and the B&S Grading Division. If the retained archaeologist, after consultation with the appropriate Native American tribe, finds no potential for impacts to unique archaeological resources, a letter shall be submitted to the Planning Department certifying this finding by the retained qualified archaeologist.

30.PLANNING 039

PRIOR TO ANY SP - IF HUMAN REMAINS FOUND
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any land division or development permit (use permit, plot plan, etc.), a condition of approval shall be applied to the land division or development permit, and shall read

as follows:

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resource Code section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the coroner shall notify the Native American Heritage Commission, which will determine and notify the appropriate NATIVE AMERICAN TRIBE who is the most likely descendent. The descendent shall inspect the site of the discovery and make a recommendation as to the appropriate mitigation. After the recommendations have been made, the land divider, a Native American Tribe representative, and a County representative shall meet to determine the appropriate mitigation measures and corrective actions to be implemented.

30.PLANNING 040

PRIOR TO ANY PROJECT APPROVAL SP - COMMON AREA MAINTENANCE Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing land division project within the SPECIFIC PLAN (i.e. tract map or parcel map), the following condition shall be placed on the implementing application:

"PRIOR TO MAP RECORDATION, the following procedures for common area maintenance procedures shall be complied with:

a. A permanent master maintenance organization shall be established for the SPECIFIC PLAN area to assume ownership and maintenance responsibility for all common recreation, open space, circulation systems and landscaped areas. The organization may be public or private. Merger with an area-wide or regional organization shall satisfy this condition provided that such organization is legally and financially capable of assuming the responsibilities for ownership and maintenance. If the organization is a private association then neighborhood associations shall be established for each residential development, where required, and such associations may assume ownership and maintenance responsibility for neighborhood common areas.

b. Unless otherwise provided for in these conditions of approval, common open areas shall be conveyed to the maintenance organization as implementing development is approved or any subdivision as recorded.

c. The maintenance organization shall be established prior to or concurrent with the recordation of the first land division. Any agreements with the maintenance organization shall stipulate that maintenance of landscaped areas will occur in accordance with Ordinance No. 859 (as adopted and any amendments thereto) and the Riverside Guide to California Friendly Landscaping.

d. Covenants, Conditions, and Restrictions for the SPECIFIC PLAN shall prohibit the use of water-intensive landscaping and require the use of low water use landscaping pursuant to the provisions of Ordinance No. 859 (as adopted and any amendments thereto).

e. Covenants, Conditions, and Restrictions for the SPECIFIC PLAN shall incorporate provisions concerning landscape irrigation system management and maintenance for the purpose of

facilitating the water-efficient landscaping requirements of Ordinance No. 859 (as adopted and any amendments thereto). The common areas to be maintained by the master maintenance organization shall be identified in the DISTRICT REFINEMENT PLAN'S"

30.PLANNING 041

PRIOR TO ANY SP - ENTRY MONUMENTATION
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

All monumentation shall be in substantial conformance to the DISTRICT REFINEMENT PLAN for the respective DISTRICT of the SPECIFIC PLAN.

Landscaping of entry monument(s) shall comply with Ordinance No. 859 (as adopted and any amendments thereto) and the Riverside County Guide to California Friendly Landscaping."

30.PLANNING 045

PRIOR TO ANY SP - CVWD CLEARANCE
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

The Coachella Valley Water District (CVWD) has indicated a conceptual approval of the Specific Plan design and related studies in a letter provided to the Planning Department on October 22, 2010. The following conditions of approval were requested in said letter. Prior to approval of any implementing project, the project proponent shall provide a clearance letter from CVWD to the Planning Department indicating that the following requirements have been met to the satisfaction of CVWD:

1. Flood risks from two drainage areas and potential flows from the Un-named Canyon South of Barton Canyon-Fan 6 and Barton Canyon-Fan 5 were not identified in the Report as a flood hazard that impact the development at the northwestern and north boundaries (Pierce Street and Avenue 80). The two drainage areas contribute approximately 1,200 - 2,000 cfs per square mile. The flows from the two drainage areas along with potential flows from Un-named Canyon-Fan 6 and Barton Canyon-Fan 5 will need to be determined and facilities constructed to collect, route and discharge the flows in a manner compatible with pre-project/existing conditions. These flood risks are identified on the Exhibit.

2. The proposed flood control scheme will need to adequately address potential upstream and downstream impacts, as summarized below:

a. Channel 4 collects flow from a fan surface and discharges 3,490 cfs of concentrated flow into a culvert at HWY 86 where there are no downstream improvements. The discharge from Channel 4 must be released in a manner consistent with pre- project/existing conditions, which will require future analysis to define these conditions. Alternatively, the developer can store or discharge flows within the boundaries of the northern portion of the development or obtain flooding easements from northern adjacent property owners.

b. The existing flood hazard analysis shows depths of 1 to 2 feet and velocities of 6 to 7 feet per second (fps) near the upstream (southwesterly) boundary of the development. The flood control concept plans show velocities that exceed 15 fps and depths of over 2 feet in the proposed channels. It is our view that the proposed depths and velocities will rapidly erode their proposed (natural bottom) flood channels and erosion may extend upstream of the development boundary.

Future detailed analyses will be required to demonstrate that the channels remain stable, maintain their flood conveyance capacity and do not alter properties upstream of the development. Engineering solutions may include wider or concrete lined flood control channels.

c. The flood control scheme proposes to excavate flood basins and sediment traps and construct diversion channels to route flows from Channel 1, 2 and 3 through existing culverts within HWY 86's right-of-way. It is not known if Caltrans will permit the developer to build these facilities and we are not yet convinced that routing the peak flows through the existing culverts is a practical solution to flood management. Future detailed analysis will be required and engineering solutions may require improved or new culverts/bridges under HWY 86.

d. The developer will be required to obtain tentative approval from Caltrans for use and/or improvements within their right-of-way.

e. The flood control scheme has three channels that discharge concentrated flows of 840 cfs, 34,039 cfs and 11,306 cfs into the Salton Sea. No analysis has been provided to demonstrate these discharges are reasonably similar to pre-project conditions. As well, potential impacts from sediment deposition and the Sea's receding shoreline on downstream properties have not been addressed. Future detailed analysis will be required that demonstrates the issues above have been addressed; such an analysis may result in changes to the conceptual designs of Channels 1, 2 and 3.

f. The flood control scheme proposes flood basins and sediment traps to the east of HWY 86 as part of protecting the development. These basins will capture sediment transported from the Santa Rosa Mountains and also capture sediments eroded from the flood control channels. Future detailed analyses will be required to predict the volumes of sediment that might be transported and trapped to ensure that the flood control scheme will function under these predicted volumes and develop a practical sediment management program.

3. A future detailed document that discusses the management, operations, and maintenance of the flood control system will also be required.

The development proposes to use for flood control several CVWD irrigation drainage channels that discharge into the Salton Sea. Coachella Valley drainage channels have existing beneficial uses that include preservation of rare, threatened or endangered species. Please note that the Conditional Letter of Map Revision (CLOMR) process as of October 1, 2010, requires compliance with the Endangered Species Act (ESA). ESA compliance documentation is required prior to submitting the CLOMR to FEMA. Because of the recent change, CVWD may require that the developer obtain a CLOMR prior to approval of Tentative Map.

The Salton Sea is designated as Waters of the United States; the developer will be required to obtain permission and/or permits for the construction of the channels at the Salton Sea from the Army Corps of Engineers, the Environment Protection Agency (EPA) and the Regional Water Quality Control Board.

The developer is urged to begin consultation with U.S. Department of Interior's Fish and

Wildlife Service, California Department of Fish and Game, Army Corps of Engineers and other environmental agencies regarding the flood control scheme to minimize any potential future impacts/changes to the flood control scheme.

CVWD requests the county require the developer to update the pertinent sections of Specific Plan 375 and the EIR documentation to include the above conditions as part of the flood control scheme concept approval. Also, CVWD requests to reserve the right to comment on the flood control scheme in the event modifications are made during the finalization of the Specific Plan & EIR documentation.

30.PLANNING 046

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.1-4

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.1-4 from EIR514 requires:

Prior to grading final, the project applicant shall develop a lighting plan to reduce off-site and nighttime lighting impacts that shall be subject to approval by the Riverside Planning Department. The plan shall require all lighting adjacent to open space areas to be downcast luminaries with light patterns directed away from and shielded so that light is not directed into open space areas. Mercury vapor and halide lighting shall not be used on the perimeter of the developed areas and in areas adjacent to undeveloped open space. Security lighting throughout the project shall be controlled to limit light shine to necessary periods."

30.PLANNING 047

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-1

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-1 from EIR514 requires:

Prior to implementing project approval, applicants for implementing projects shall develop a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

30.PLANNING 048

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-2

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following

language shall be added to the implementing project:

Mitigation Measure 6.3-2 from EIR514 requires:

Prior to grading permit issuance, applicants for implementing projects shall develop a Construction Emission Management Plan to minimize construction-related emissions. The Construction Emission Management Plan shall include, at a minimum, the following elements:

- Use of water trucks or sprinkler system in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 miles per hour the operators shall increase watering frequency.
- Suspend grading and excavation activities during windy periods (i.e., surface winds in excess of 20 miles per hour).
- Suspend the use of all construction equipment during first-stage smog alerts.
- Active sites shall be watered at least three times daily during dry weather.
- Increase watering frequency during construction or use non-toxic chemical stabilizers if it would provide higher control efficiencies.
- Application of non-toxic chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days) or plant vegetative ground cover as soon as possible. -Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeded areas.
- Cover or application of water or non-toxic chemical suppressants to form and maintain a crust on inactive storage piles.
- Retrofit large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as particulate traps, selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., shall be evaluated. These technologies will be required if they are certified by CARB and/or the US EPA, and are commercially available and can feasibly be retrofitted onto construction equipment.
- The project applicant shall require all on-site construction equipment to meet US EPA Tier 4 or higher emissions standards according to the following:
 - Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, BACT documentations, and CARB, SCAQMD, or ICAPCD operating permit shall be provided at the

time of mobilization of each applicable unit of equipment.

-Designate personnel to monitor dust control measures to ensure effectiveness in minimizing fugitive dust emissions.

-An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.

"The contractor shall utilize low-VOC content coatings and solvents that are consistent with applicable SCAQMD and ICAPCD rules and regulations.

Consideration shall be given to use of other transportation methods to deliver materials to the construction sites (for example, trains or conveyors) if it would result in a reduction of criteria pollutant emissions."

30.PLANNING 049

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-3

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-3 from EIR514 requires:

Prior to implementing project approval, applicants for implementing projects located in areas under the jurisdiction of the SCAQMD shall be required to conduct a project-level Localized Significance Thresholds (LST) analysis in accordance with the SCAQMD Final Localized Significance Thresholds Methodology or any superseding guidance document adopted by the SCAQMD Governing Board (South Coast Air Quality Management District, Final Localized Significance Threshold Methodology (2008). The guidance document may be viewed at the following website: <http://www.aqmd.gov/ceqa/handbook/lst/lst.html>).

30.PLANNING 050

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-4

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-4 from EIR514 requires:

Prior to building final inspection, the applicant shall submit building plans to the County Building Department to demonstrate that all residential buildings are designed to achieve energy efficiency equivalent to levels 30 percent better than the current standards required by Title 24 (2008) Standards at the time building permits are issued."

30.PLANNING 051

SP - MITIG MEASURE 6.3-5

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-5 from EIR514 requires:

Prior to building final inspection, the applicant shall submit building plans to the County Building Department to demonstrate that all commercial buildings shall be designed to achieve energy efficiency equivalent to levels 15 percent better than the current standards presently required by Title 24 (2008) Standards at the time building permits are issued."

30.PLANNING 052

PRIOR TO ANY SP - MITIG MEASURE 6.3-6
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-6 from EIR514 requires:

Prior to building final inspection, the applicant shall provide preferential parking spaces for carpools and vanpools at major commercial and office locations. The spaces shall be clearly identified in plot plans and may not be pooled in one location. A minimum of 10 percent of parking spaces in excess of those required by County ordinance shall be reserved for carpool or vanpool parking."

30.PLANNING 054

PRIOR TO ANY SP - MITIG MEASURE 6.3-7
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-7 from EIR514 requires:

Prior to building final inspection, applicants shall post "5-minute idling" signs for trucks where

applicable."

30.PLANNING 055

PRIOR TO ANY SP - MITIG MEASURE 6.3-8
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-8 from EIR514 requires:

Prior to implementing project approval, applicants for implementing projects shall provide or make arrangements to provide shuttle service connecting the project's medium- and high-density development areas to existing transit service until such time that full transit service is provided to and within the project site.

30.PLANNING 056

PRIOR TO ANY SP - MITIG MEASURE 6.3-10
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-10 from EIR514 requires:

Prior to implementing project approval, plans demonstrating that active parks, playgrounds, schools, and nursing/hospital facilities are to be located at least 500 feet from the closest right of way of State Route 86S shall be submitted to the County Planning Department for review and approval.

30.PLANNING 057

PRIOR TO ANY SP - MITIG MEASURE 6.3-11
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-11 from EIR514 requires:

Prior to implementing project approval, plans demonstrating that residential units are to be located a minimum of 300 feet from the nearest right of way of State Route 86S to the lot line shall be submitted to the County Planning Department for review and approval.

30.PLANNING 058

PRIOR TO ANY SP - MITIG MEASURE 6.3-12
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-12 from EIR514 requires:

Prior to building final inspection, residential units located within 500 feet from the closest right of way of State Route 86S shall be equipped with high-efficiency electrostatic cleaning devices."

30.PLANNING 059

PRIOR TO ANY SP - MITIG MEASURE 6.3-13
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.3-13 from EIR514 requires:

Prior to implementing project approval, residential units located within 500 feet from the closest right of way of State Route 86S shall be required to conduct a health risk assessment.

30.PLANNING 060

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-14

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.3-14 from EIR514 (as revised by the RRDEIR) requires:

Prior to building final inspection, permit applicants shall provide the County Planning Department with a disclosure document form, to be provided to all future property owners (residential and commercial), disclosing that the property is in the Salton Sea Air Basin, which is an area designated as in nonattainment status by the U.S. EPA and California Air Resources Board (CARB) for particulate matter, including but not limited to PM10. The documentation shall note that periodic wind blown dust and particulate matter from agricultural lands in Riverside and Imperial County, and exposed Salton Sea shoreline areas if sea levels recede further, may result in adverse respiratory health impacts. The disclosure form shall be provided to all future property owners within the Project site, after review and approval by the County Planning Department."

30.PLANNING 061

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-15

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.3-15 from EIR514 (as revised by the RRDEIR) requires:

Prior to grading permit issuance, the construction contractor shall prepare a Work Plan for review and approval by County Building and Safety Department and County Department of Public Health that includes the following measures, where feasible, to reduce valley fever and Hantavirus risk during construction:

-For construction activity involving substantial soil disturbance activity, preferentially assign persons with positive coccidioidin skin tests (since those with positive tests can be considered

immune to reinfection of valley fever) to perform the work.

-Hire crews from local populations when and where possible, since it is more likely that they have been previously exposed to the fungus (*coccidioides immitis*) and are therefore immune.

-Consult with staff from the Coachella Valley Mosquito and Vector Control District to ascertain whether the wild rodent surveillance program has identified risks posed by the Hantavirus in areas under construction. Construction activity shall be limited in areas identified as a risk and workers shall be notified of the findings.

-Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.

-Require that the cabs of grading and construction equipment be air-conditioned.

-Preferentially assign crews to work upwind from excavation sites to the greatest extent possible. This measure does not apply to persons with positive coccidioidin skin tests (since those with positive tests can be considered immune to reinfection of valley fever).

-Pave or apply sufficient water or environmentally safe dust control agents on all construction roads.

-Where acceptable to the fire department, control weed growth by mowing instead of discing, thereby leaving the ground undisturbed and with a mulch covering.

-During rough grading and construction, the access way into the project site from adjoining paved roadways should be paved or treated with water or environmentally safe dust control agents."

30.PLANNING 062

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-18

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.3-18 from EIR514 requires:

Prior to implementing project approval, stationary sources of diesel, ozone, toxic air contaminants (TAC's) or particulate matter (PM10 and PM2.5) contaminants or projects attracting or generating substantial numbers of diesel truck trips shall be required to demonstrate to the County Planning Department that such projects would not exceed the health-based significance thresholds established by the SCAQMD and/or ICAPCD as appropriate. Based on the current health-based significance thresholds, if the assessment determines that the project would result in an incremental increase in cancer risk of more than 10 in 1 million at the maximally impacted residential, sensitive, and off-site workplace receptors or that the chronic hazard indices for non-cancer health impacts are above 1.0 at the maximally exposed residential, sensitive, and off-site workplace receptors, the proposed project shall be required to implement project design changes or measures that would reduce impacts to below the existing established thresholds.

30.PLANNING 063

SP - MITIG MEASURE 6.3-21

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Mitigation Measure 6.3-21 from EIR514 (as revised by the RRDEIR) requires:

Prior to implementing project approval, plans demonstrating that auto body shops with painting/coating operations are to be located at least 1 mile feet from odor sensitive receptors shall be submitted to the County Planning Department for review and approval.

30.PLANNING 064

PRIOR TO ANY SP - MITIG MEASURE 6.3-22
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.3-22 from EIR514 (as revised by the RRDEIR) requires:

Prior to implementing project approval, plans demonstrating that asphalt plants are to be located at least 1 mile feet from odor sensitive receptors shall be submitted to the County Planning Department for review and approval.

30.PLANNING 065

PRIOR TO ANY SP - MITIG MEASURE 6.5-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.5-1 from EIR514 requires:

Prior to issuance of a grading permit, as required by State CEQA Guidelines Sections 15064.5(e) and (f), a cultural resources management plan (CRMP) shall be prepared and submitted for the appropriate County Planning Department for review and approval. The CRMP shall contain detailed provisions for the treatment of unanticipated discoveries during project construction, including human remains. The provisions of the CRMP should be consistent with state law as contained in Health and Safety Code Section 7050.5, and PRC Sections 5097.94 and 5097.98. Such mitigation shall be addressed in a manner consistent with the following:

-If buried materials of potential historical or cultural significance are accidentally discovered during any earth-moving operations associated with the proposed project, all work in that area shall be halted or diverted until a qualified historian/archaeologist can evaluate the nature and significance of the finds. If the find is determined to be an historical resource, as defined in Section 15064.5 of the California Code of Regulations (State CEQA Guidelines), avoidance or other appropriate measures as discussed in the CRMP shall be implemented.

-If evidence of potentially significant prehistoric or historic resources is uncovered during project-related grading areas in which archaeological and Native American monitoring has already been required, the extent of monitoring shall be amended and the presence of a Native

American monitors shall be incorporated into the monitoring program for all areas in the affected tentative tract."

30.PLANNING 066

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.5-3

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.5-3 from EIR514 requires:

Prior to grading final for any grading activity near any of the sites listed below, the respective following site shall be tested and evaluated in consultation with the Torres-Martinez Desert Cahuilla Indians as required, and pursuant to the requirements of Phase II Archaeological standards and practices, as approved by Riverside County, for the sites to determine integrity, data potential and significance: CA-RIV-8891 (33-17082), CA-RIV-8894 (33-17085), CA-RIV-8895 (33-17086), CA-RIV-8896 (33-17087), CA-IMP-8784 (13-009821), CA-IMP-8785 (13-009822), CA-IMP-8786 (13 009823), CA-IMP-92, CA-IMP-100, and CA-IMP-2626."

30.PLANNING 067

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.5-7

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

"Mitigation Measure 6.5-7 from EIR514 (as revised by the RRDEIR) requires:

Prior to grading final for each implementing project, the areas under consideration shall be monitored by a County-approved and qualified paleontologist, who shall develop a formal agreement with a recognized museum repository, such as the Natural History Museum of Los Angeles County Vertebrate Paleontology Department (LACM). Prior to earth moving activities, the paleontologist shall coordinate with appropriate construction contractor personnel.

Should paleontological resources be discovered during earthmoving activities, work shall cease and no further disturbance shall occur in the immediate vicinity of the uncovered resource and an area 50 feet in diameter of the find. A paleontologist shall be contacted to investigate the find and, if deemed necessary, collect uncovered paleontological resources, curate any resources collected with an appropriate reposition, and file a report with the appropriate Planning Department documenting any paleontological resources that are found. Upon completion of the

field investigation, collection of the resources, if necessary, and clearance of the find by the paleontologist, earthmoving activities may resume."

30.PLANNING 068

PRIOR TO ANY SP - MITIG MEASURE 6.6-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.6-1 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical and engineering geologic investigations that analyze site-specific seismic shaking including provisions for appropriate construction techniques, including adherence to local codes and the California Building Code's design criteria for construction within former Seismic Zone 4, now Seismic Design Category E or F, shall be prepared by California-registered geotechnical engineers and certified engineering geologists, and submitted to the Riverside County Planning Department-Geology (or equivalent) for review and approval.

30.PLANNING 069

PRIOR TO ANY SP - MITIG MEASURE 6.6-2
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.6-2 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical and engineering geologic investigations shall analyze site-specific lateral spread landslide potential (in accordance with Special Report 117 and the 2007 CBC) and (as appropriate) include provisions for appropriate construction techniques. This shall include adherence to the California Building Code's design criteria for construction within Seismic Design Category E or F. This study and all appropriate recommendations shall be prepared by California registered geotechnical engineers and certified engineering geologists, and submitted to the Riverside County Planning Department-Geology (or equivalent) for review and approval.

30.PLANNING 070

PRIOR TO ANY SP - MITIG MEASURE 6.6-3
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GARDING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.6-3 from EIR514 requires:

Prior to the issuance of grading permits and in compliance with the requirements of Riverside County ordinances, a detailed design-level geotechnical report(s) shall be submitted to the County's Geologist for review and approval concurrent with each tract map or parcel map application. The report(s) shall identify and address site-specific (a) underlying soil conditions (including corrosive and expansive soil conditions), (b) liquefaction potential, (c) seismic parameters and building requirements, (d) tile drain and subdrainage system conditions, and (e)

slope stability and rockfall hazards. The measures recommended in the final geotechnical report(s) shall be identified on applicable grading plans and shall be implemented to the satisfaction of the County Geologist. Grading shall be performed in accordance with applicable provisions of the Standard Grading Specifications contained in the design-level geotechnical reports."

30.PLANNING 071

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.6-4(A)

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.6-4 from EIR514 requires:

Prior to implementing project approval (and grading final, see 30.PLANNING.72) site-specific hydrologic, geotechnical and engineering geologic investigations shall analyze site-specific soils for erosion, sedimentation, and debris flow potential (in accordance with local codes and the 2007 CBC) and (as appropriate) include provisions for appropriate construction techniques. These studies and all appropriate recommendations shall be prepared by California registered geotechnical engineers, registered civil engineers, and certified engineering geologists, and submitted to the Riverside County Planning Department-Geology (or equivalent) for review and approval.

30.PLANNING 072

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.6-4(B)

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.6-4from EIR514 requires:

Prior to grading final, site-specific hydrologic, geotechnical and engineering geologic investigations shall analyze site-specific soils for erosion, sedimentation, and debris flow potential (in accordance with local codes and the 2007 CBC) and (as appropriate) include provisions for appropriate construction techniques. These studies and all appropriate recommendations shall be prepared by California registered geotechnical engineers, registered civil engineers, and certified engineering geologists, and submitted to the Riverside County Planning Department-Geology (or equivalent) for review and approval."

30.PLANNING 073

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.6-5

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following

language shall be added to the implementing project:

Mitigation Measure 6.6-5 from EIR514 requires:

Prior to grading final for each implementing project, the project applicant shall submit a copy of the Notice of Intent (NOI) to obtain coverage under the Construction General Permit of the National Pollutant Discharge Elimination System (NPDES) issued by the Colorado River Regional Water Quality Control Board (CRRWQCB). The applicant shall submit a copy of the NOI and shall provide a copy of the required Storm Water Pollution Prevention Plan (SWPPP) to Riverside (or equivalent) for review and approval. A copy of the SWPPP must be maintained on the project site during grading and construction activities. The Riverside County Planning Department shall review the documentation and shall conduct site inspections during construction to monitor for compliance with the SWPPP. The project's SWPPP shall also include the following provisions:

-Pre-Grading: The portions of the site to be graded shall be pre-watered to a depth designated by the soils engineer prior to the onset of grading operations.

-Pre-Grading: Undisturbed areas of biological soil crusts in "non-construction" areas adjacent to proposed roadways, buildings, parking areas, etc., shall be marked so that unnecessary disturbance of the biological soil crusts is minimized.

-During Grading: Once grading has commenced, and until grading has been completed, watering of the site and/or other treatment(s) determined to be appropriate shall be ongoing.

-Post-Grading: All disturbed areas shall be treated to prevent erosion during the term that the area will remain undeveloped.

-Landscape and irrigation shall be installed per future plan submittals."

30.PLANNING 074

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.6-6

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.6-6 from EIR514 requires:

Prior to grading final for each implementing project, the applicant/owner shall submit and implement a Storm Water Quality Management Plan (SWQMP). The SWQMP shall include the following elements: identification of potential pollutant sources that may affect the quality of the storm water discharges; the proposed design and placement of structural and non-structural best management practices (BMPs) to address identified pollutants; a proposed inspection and

maintenance program; and a method for ensuring maintenance of all BMPs over the life of the project. The approved measures shall also be shown on site, building, and grading plans. Maintenance records shall be maintained by the applicant/owner for residential developments, or landowners for commercial developments. Prior to approval of the Land Use Permit, the SWQMP shall be submitted to Riverside County Flood Control and Water Conservation District. All measures specified in the plan shall be constructed and operational prior to occupancy clearance. Maintenance records shall be submitted to Riverside County Planning Department on an annual basis prior to the start of the rainy season and for five years thereafter. After the fifth year, the records shall be maintained by the landowner or applicant/owner, and be made available to Riverside County Planning Department on request."

30.PLANNING 075

PRIOR TO ANY SP - MITIG MEASURE 6.6-7
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.6-7 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical investigations shall be prepared and submitted to the Riverside County of Planning Department-Geology, as appropriate, to identify areas of potential shallow groundwater. The geotechnical studies shall identify appropriate construction techniques (e.g., dewatering, groundwater barriers, et al.) where groundwater is identified within 50 feet of the ground surface.

30.PLANNING 076

PRIOR TO ANY SP - MITIG MEASURE 6.6-8
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.6-8 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical investigations shall be prepared and submitted to the Riverside County Planning Department-Geology, as appropriate, to identify potential impacts related to subsidence. The geotechnical studies shall identify appropriate construction techniques to be used during grading and building design such as the compaction of soils, modified grading techniques, use of spread footings, the use of post tensioned slabs, and other methods.

30.PLANNING 077

PRIOR TO ANY SP - MITIG MEASURE 6.6-9
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.6-9 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical and engineering geologic investigations that analyze site-specific soil conditions, including the potential for collapsible soils, shall be prepared by California registered geotechnical engineers and certified engineering geologists, and submitted to the Riverside County Planning Department-Geology (or equivalent) for review and approval. Recommended mitigations may include overexcavation of the subject soils and recompaction on new engineered fill material, possibly pre-saturating the subject soils, and provision of proper surface drainage away from structures and building foundations.

30.PLANNING 078

PRIOR TO ANY SP - MITIG MEASURE 6.6-10

Status: Conditions:
INEFFECT **Outstanding**

PROJECT APPROVAL

Mitigation Measure 6.6-10 from EIR514 requires:

Prior to implementing project approval, site-specific geotechnical studies, including soil expansion tests, shall be prepared and submitted to the Riverside County Planning Department-Geology, as appropriate, and shall include appropriate construction methods to reduce impacts from expansive soils.

30.PLANNING 079

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.7-2

Status: INEFFECT Conditions: Outstanding

Mitigation Measure 6.7-2 from EIR514 requires:

Prior to implementing project approval and grading final, future applicants for implementing projects and grading permits on the project site shall conduct a site survey by a County-approved licensed professional to identify and remediate all contaminated soils on the project site. All pesticide residue measured in on-site soils shall not exceed the applicable Preliminary Remediation Goals and the survey report shall be approved and documented by the Riverside County Department of Environmental Health.

30.PLANNING 080

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.7-3

Status: INEFFECT Conditions: Outstanding

Mitigation Measure 6.7-3 from EIR514 requires:

Prior to implementing project approval, the applicant shall submit plans to the Coachella Valley Mosquito and Vector Control District (CVMVCD) which identify potential breeding sources for mosquitoes (such as standing water in street catch basins, subdivision drains, roadside ditches, flood channels, ravines, and similar places on public right-of-way and parks) that demonstrate designs that would minimize such breeding sources.

30.PLANNING 081

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-1

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.8-1 from EIR514 requires:

Prior to grading final for each implementing project, a project-specific water quality management plan (WQMP) shall be submitted to Riverside County for review and approval."

30.PLANNING 082

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-2

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.8-2 from EIR514 (as revised by the RRDEIR) requires:

Prior to grading final for each implementing project, a detailed operation and maintenance plan shall be submitted to the Riverside County and Coachella Valley Water District for review and approval for the as-built project conditions."

30.PLANNING 083

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-3

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.8-3 from EIR514 requires:

Prior to grading final for each implementing project, a Storm Water Pollution Prevention Plan (SWPPP) shall be developed and submitted to the Regional Water Quality Control Board for review approval. The SWPPP shall identify potential sources of pollution and specify runoff controls or BMPs during construction for the purpose of minimizing the discharge of pollutants in stormwater from the construction area. In addition, the SWPPP must identify post-construction control measures and a monitoring plan."

30.PLANNING 084

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-5

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.8-5 from EIR514 requires:

Prior to grading final for each implementing project, the applicant shall provide a plan for re-routing or connecting to existing irrigation and drainage facilities. This may include use of or alternation to facilities operated by or within the rights-of-way of other entities/The plan shall be

submitted to the appropriate agency (US Bureau of Reclamation, Caltrans, or Coachella Valley Water District) for review and approval."

30.PLANNING 085

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-6

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.8-6 from EIR514 requires:

During grading, the existing under-drainage system (tile drains), shall be preserved, where possible, to reduce potential adverse effects due to groundwater. Light weight excavation equipment shall be used where excavations come near the existing tile drains to prevent damage to the underdrainage system. Where the tile drains are to be disrupted or exposed during grading, a replacement set of drains will be needed. The grading and construction aspects of the underdrainage system shall be performed under the guidance, observation/documentation, and recommendations of the Project Geologist. A formal evaluation of the installed subdrainage system, including the remaining tile drains, shall be evaluated for operation and flow once grading activities are completed. This report shall be prepared by the Project Geologist, the Project Civil Engineer, or the Project Agricultural/Civil Engineer and submitted to Riverside County for review."

30.PLANNING 086

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-8

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.8-8 from EIR514 requires:

Prior to implementing project approval, the applicant shall submit to Coachella Valley Water District (CVWD) for review and approval a hydrologic study that evaluates the potential flows from Un-Named Canyon-Fan 6 and Barton Canyon-Fan 5. This study will identify facilities to be constructed to collect, route and discharge flows in a manner compatible with pre-project/existing conditions across the project site.

30.PLANNING 087

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.8-10

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.8-10 from EIR514 requires:

Prior to implementing project approval for each phase or district, as appropriate, the applicant shall submit for review and approval a hydrology report to address potential erosion issues within the proposed channels to demonstrate that the channels remain stable, maintain their flood conveyance capacity, and do not alter properties upstream of the proposed project.

30.PLANNING 088 SP - MITIG MEASURE 6.11-3

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Mitigation Measure 6.11-3 from EIR514 requires:

Prior to implementing project approval for each implementing project, for residential lots located within 65 dB(A) CNEL or greater noise contour or adjacent to a road that is classified as a secondary or larger, an acoustic analysis shall be required to address requirements for determining and mitigating traffic noise impacts to residential structures. The acoustical analysis must be received, reviewed, and approved by the appropriate agency (such as the Riverside County Office of Industrial Hygiene). Methods that may be implemented to meet the standards include, but are not limited to, providing noise walls of sufficient size to break the line of sight between roadways and residential areas, providing open-space buffers, providing natural barriers such as hills, berms, boulders, and dense vegetation, or a combination of these methods.

30.PLANNING 089

PRIOR TO ANY SP - MITIG MEASURE 6.11-4
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Mitigation Measure 6.11-4 from EIR514 (as revised by the RRDEIR) requires:

Prior to implementing project approval for each implementing project, a future noise study is required to address the stationary commercial noise standard as it relates to parking lot noise. Facility-related noise as projected to any portion of any surrounding property containing a "habitable dwelling, hospital, school, library, or nursing home," must not exceed the following worst-case noise levels of 45 dB(A) - 10-minute noise equivalent level (Leq) between the hours of 10:00 PM to 7:00 AM (nighttime standard); and 65 dB(A) - 10-minute Leq, between 7:00 AM and 10:00 PM (daytime standard). The noise study must be received, reviewed, and approved by the appropriate agency (such as the Riverside County Office of Industrial Hygiene). Methods that may be employed to reduce parking lot noise may include a noise barrier of sufficient size to break the line of sight, an open-space buffer, a setback, or a combination of methods shall be developed along locations between parking lot noise and exterior usable areas within residential uses where these uses interface."

30.PLANNING 090

PRIOR TO ANY SP - MITIG MEASURE 6.11-5
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.11-5 from EIR514 requires:

Prior to implementing project approval for each implementing project, a future noise study is required to address the stationary commercial noise standard as it relates to loading dock noise. Facility-related noise as projected to any portion of any surrounding property containing a "habitable dwelling, hospital, school, library, or nursing home," must not exceed the following worst-case noise levels of 45 dB(A) - 10-minute noise equivalent level (Leq) between the hours of 10:00 PM to 7:00 AM (nighttime standard); and 65 dB(A) - 10-minute Leq, between 7:00 AM

and 10:00 PM (daytime standard). The noise study must be received, reviewed, and approved by the appropriate agency (such as the Riverside County Office of Industrial Hygiene) prior to each implementing project approval. Methods that may be employed to reduce parking lot noise may include designing loading docks to have either a depressed (i.e., below grade) loading dock area, an internal bay, or a wall to break the line of sight between residential land uses and loading operations.

30.PLANNING 091

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.11-6

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.11-6 from EIR514 requires:

Prior to implementing project approval, a future noise study is required to address the stationary commercial noise standard as it relates to mechanical, electrical, or other related commercial type noise. Facility-related noise as projected to any portion of any surrounding property containing a "habitable dwelling, hospital, school, library, or nursing home," must not exceed the following worst-case noise levels of 45 dB(A) - 10 minute noise equivalent level (Leq) between the hours of 10:00 PM to 7:00 AM (nighttime standard); and 65 dB(A) - 10-minute Leq, between 7:00 AM and 10:00 PM (daytime standard). The noise study must be received, reviewed, and approved by the appropriate agency (such as the Riverside County Office of Industrial Hygiene) prior to each implementing project approval. Method that may be employed to reduce mechanical, electrical, or other commercial type noise may include locating equipment away from receptor areas, proper selection and sizing of equipment, installation of equipment with proper acoustical shielding, and incorporating the use of parapets into building design.

30.PLANNING 092

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.11-7

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.11-7 from EIR514 requires:

Prior to grading final for each implementing project, the construction contractors shall use best management practices (BMPs) to reduce vibration due to specific plan construction activities by implementing the following:

-identifying all uses in the vicinity that may be adversely affected by the vibrations, including residences built in earlier phases and non-residential land uses that may contain vibration-sensitive equipment;

-installing seismographs at the aforementioned sensitive locations to ensure that vibration thresholds are not exceeded, and/or that construction activities would not cause structural

damage or adversely affect vibration-sensitive equipment;

-adjusting vibration amplitudes of the construction equipment used on site such as limiting the number of pieces operating in one location at the same time in areas where conditions would affect structures, the sensitivity of vibration sensitive equipment, and/or human tolerance;

-utilizing cast-in-drilled-hole (CIDH) piles in lieu of pile driving;

-providing notification to the residential land uses directly adjacent to the project site, at least 10 days in advance, of construction activities that are anticipated to result in vibration levels above the thresholds;

-conducting demolition, earthmoving, and ground-impacting operations sequentially, so as not to have two such operations occurring on the project site at the same time;

-selecting a demolition method to minimize vibration, where possible (e.g., sawing masonry into sections rather than demolishing it by pavement breakers); and/or

-operating earth-moving equipment on the construction site as far away as possible or practical from vibration-sensitive sites; using wheeled or rubber-tracked equipment, and using small pieces of equipment such as smaller bulldozers when possible.

The Riverside County Building and Safety Department shall monitor the conditions to determine that these BMPs are being utilized correctly and efficiently in order to reduce vibration impacts throughout the proposed project."

30.PLANNING 093

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.11-9

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.11-9from EIR514 requires:

Prior to grading final for each implementing project, the project applicant shall submit copies of proposed project construction documents and specifications to the Riverside County Building and Safety Department, as appropriate, indicating that construction staging areas along with the operation of earthmoving equipment within the project area is located as far away from vibration- and noise-sensitive sites as possible."

30.PLANNING 094

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.11-10

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.11-10 from EIR514 requires:

Prior to grading final for each implementing project, the project applicant shall submit copies of proposed project construction documents and specifications to the Riverside County Planning Department, as appropriate, indicating that heavily loaded trucks used during construction would be routed away from residential streets to the extent feasible."

30.PLANNING 095

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.13-7

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.13-7 from EIR514 requires:

Prior to grading final, the construction contractor shall provide a plan for review and approval by Riverside County Fire Department (RCFD) to demonstrate that during all grading and site clearance activities, all earth-moving equipment shall be equipped with spark arrestors and at least two portable fire extinguishers per vehicle. All equipment used in the vegetation-clearance phase shall be equipped with spark arrestors and best available fire safety technology. The vegetation-clearance activities shall be coordinated with and approved by the RCFD or SCSD in advance."

30.PLANNING 096

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.13-8

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.13-8 from EIR514 requires:

Prior to building final permit, the applicant shall submit proof that all structures adjacent to open

space shall be designed to satisfy at least a 1-hour fire resistant rating. Such structures shall incorporate fire retardant features such as boxed-in eaves, reduced overhangs, double-paned windows, convection resistant roof design, non-combustible roofing material, and related design features, as determined necessary by the RCFD and/or SCSD. Building permits shall not be issued until review of fire-retarding architectural features has been completed by the RCFD and/or SCSD. Design standards meeting RCFD and/or SCSD shall be included in the Fire Hazard Reduction Program and incorporated into the Fire Hazard Reduction Design Guidelines for the residential units."

30.PLANNING 097

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.13-10

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.13-10 from EIR514 requires:

Prior to building final inspection, the applicant shall provide for the purchasers of residential, commercial, and industrial units in planning areas that would be located adjacent to Open Space-Conservation and other off-site undeveloped or natural areas to be notified as to the requirements and maintenance of a brush-clearance radius of 100 feet around all buildings pursuant to Riverside County Ordinance No. 787 as appropriate."

30.PLANNING 098

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.14-1

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.14-1 from EIR514 requires:

Prior to grading final for each implementing project, a designated parking area with a security officer shall be provided for the construction workers during grading and construction operations. A site security plan shall be prepared and submitted to the Riverside County Sherriff's Department by the contractor indicating security features that shall be incorporated on the construction site(s), such as fencing and locked entrances, and construction equipment, tools, and material shall be secured by locking or placing them within sheds and/or other inaccessible areas while not in use."

30.PLANNING 099 SP - MITIG MEASURE 6.15-1

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Mitigation Measure 6.15-1 from EIR514 requires:

Prior to implementing project approval, applicant(s) for implementing project development shall pay the development impact fees at the designated level (Level I, II, or III) as set forth by the Coachella Valley Unified School District (CVUSD), at the current rate. Fees shall be paid based on the square-footage of development per single-family residential unit, multi-family residential unit, commercial unit, and secondary living unit as required by CVUSD policy in each implementing project area. Active adult residential units proposed in the specific plan shall pay the development impact fees at the designated level (Level I, II, or III) for commercial/industrial development, as set forth by the CVUSD, at the current rate.

30.PLANNING 100

PRIOR TO ANY SP - MITIG MEASURE 6.16-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.16-1 from EIR514 requires:

Prior to the implementing project approval, a final bidding Memorandum of Understanding (MOU) shall be executed between the applicant and Desert Recreation District (DRD) for the maintenance and operation of parks, including regional parks, within Riverside County. For the open space areas and other public parks areas within Riverside County not included as part of the final binding MOU between the applicant and DRD, the applicant shall annex into Community Service Area (CSA) 125, or other appropriate CSA, to provide for the maintenance and operation of such areas.

30.PLANNING 101

PRIOR TO ANY SP - MITIG MEASURE 6.18-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.18-1 from EIR514 requires:

Prior to grading final for each implementing project, the contractors for construction activities for the applicants of implementing projects shall prepare a construction safety plan and submit it to the appropriate County Planning Department and Fire Department for review and approval. The plan shall include provisions for safety activities, including prevention, work-related injuries, on-site safety equipment, notification procedures, and other activities to prevent, reduce, and respond to injuries during construction."

30.PLANNING 102

PRIOR TO ANY SP - MITIG MEASURE 6.20-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.20-1 from EIR514 requires:

Prior to implementing project approval, future applicants for development permits must submit plans for water delivery systems to Coachella Valley Water District (CVWD) for review and approval.

30.PLANNING 103

PRIOR TO ANY SP - MITIG MEASURE 6.20-2
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.20-2 from EIR514 requires:

Prior to implementing project approval, water quality testing for irrigation and fire suppression that uses nonpotable water shall submit documentation to Coachella Valley Water District (CVWD) indicating that the water quality meets the requirements of the California Department of Public Health and fire flow requirements for the Fire Department.

30.PLANNING 104

PRIOR TO ANY SP - MITIG MEASURE 6.22-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.22-1 from EIR514 requires:

Prior to implementing project approval, a Waste Recycling Plan (WRP) shall be submitted to the appropriate County Waste Management Department or Planning Department for approval. At a minimum the WRP shall identify the materials (e.g., concrete, asphalt, wood, etc.) that would be generated by construction and development, the project amounts, measures/methods that would be implemented to recycle, reuse, and/or reduce the amount of materials, the facilities and haulers that would be utilized, and the targeted recycling or reduction rates to be achieved.

30.PLANNING 105

PRIOR TO ANY SP - MITIG MEASURE 6.22-7
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Mitigation Measure 6.22-7 from EIR514 requires:

Prior to implementing project approval, applicant(s) shall submit for review and approval landscape plans that provide for the use of xeriscape landscaping and the use of drought tolerant low maintenance vegetation in all landscaped areas of the project.

30.PLANNING 106

PRIOR TO ANY SP - MITIG MEASURE 6.23-1
PROJECT APPROVAL

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.23-1 from EIR514 requires:

Prior to building final, residential and commercial buildings shall be conditioned to participate in any future programs, such as green pricing programs, which allow customers to support the development of renewable energy sources by paying a small premium on their electric bills, established by the Imperial Irrigation District. If the district establishes a green pricing program whereby energy generated from renewable resources either exclusively or at a higher proportion may be purchased, the proposed project shall participate in the program. Proof of participation (enrollment) shall be submitted to the Planning Department within 30 days of occupancy."

30.PLANNING 107

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.23-2

Status: Conditions:
INEFFECT **Outstanding**

Mitigation Measure 6.23-2 from EIR514 requires:

Prior to implementing project approval, the applicant shall submit plans showing the proposed locations of electricity transmission and distribution infrastructure to the Imperial Irrigation District for review and approval.

30.PLANNING 108

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-1

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-1 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide a listing of the green building practices and design elements used in the building that reduce GHG emissions to the appropriate Planning Department. The green building practices and design elements shall be consistent with the CAP and any other green building standards adopted by either Riverside County. (See, e.g., California Department of Housing and Community Development's Green Building & Sustainability Resources handbook at www.hcd.ca.gov/hpd/green_build.pdf; e.g., the American Institute of Architects at <http://www.wiki.aia.org/Wiki%20Pages/Home.aspx>)"

30.PLANNING 109

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-2

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-2 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence of its use of energy-efficient designs meeting and/or consistent with the standards in the CAP and any other green building standards adopted by either Riverside County to the appropriate Planning Department. In accordance with the CAP, all residential buildings shall, at a minimum, exceed Title 24 (2008) by 30 percent and all non-residential buildings shall, at a minimum, exceed Title 24 (2008) by 15 percent. This measure does not exempt buildings from meeting future energy efficiency obligations that may result from future revisions to the Title 24 standards."

30.PLANNING 110

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-3

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-3 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of its use of energy efficient lighting, heating and cooling systems, appliances, equipment, and control systems, including the installation of ENERGY STAR-certified products, consistent with the standards in the CAP and any other energy efficiency standards adopted by either Riverside County or \ County. (Information about ENERGY STAR-certified products are available at http://www.energystar.gov/index.cfm?fuseaction=find_a_product; see also the California Energy Commission's database of appliances meeting federal or state energy standards at <http://www.appliances.energy.ca.gov>; see the Electronic Product Environmental Assessment Tool for ranking of energy efficient computer equipment at <http://www.epeat.net/AboutEPEAT.aspx>; see the Online Guide to Energy Efficient Commercial Equipment at http://www.aceee.org/ogeece/ch1_index.htm)"

30.PLANNING 111

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-4

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-4 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of "cool" roofs or "green" roofs, and cool

pavements. (See Consumer Energy Center, Cool Roofs at <http://www.consumerenergycenter.org/coolroof/>)"

30.PLANNING 113

PRIOR TO ANY PROJECT APPROVAL
SP - MITIG MEASURE 6.24-5

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-5 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of automatic covers, efficient pumps and motors, and solar heating for pools and spas. (See http://www.consumerenergycenter.org/home/outside/pools_spas.html)."

30.PLANNING 114

PRIOR TO ANY PROJECT APPROVAL
SP - MITIG MEASURE 6.24-6

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-6 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence that the building is consistent with and/or does not conflict with the following Specific Plan-wide renewable energy targets:

-80 percent of residential units shall meet 60 percent of their baseline demand power energy needs with renewable energy; and

-80 percent of commercial building square footage shall meet 40 percent of their baseline demand power energy needs with renewable energy.

Should the individual structure not be able to demonstrate that power provided by the Imperial Irrigation District (IID) does not comply with this standard, then the individual structure shall comply by providing renewable energy power from a source within the limits of the Specific Plan. "

30.PLANNING 115 SP - MITIG MEASURE 6.24-7

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-7 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of water efficient irrigation systems and devices, such as soil-based irrigation controls and use water-efficient irrigation methods consistent with measures recommended in the CAP. In accordance with the CAP, the applicant shall provide evidence that the building is consistent with the following Specific Plan-wide water conservation measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following water conservation measures:

-90 percent of all builder-installed plumbing devices in each residential buildings will be low-flow and water-efficient;

-90 percent of all builder-installed plumbing devices in each non-residential buildings will be low-flow and water-efficient;

-Turf will not exceed 20 percent of the total landscaped area of each Planning Area, with the exception of parks, recreation centers, and schools;

-80 percent of public and common landscape areas will use smart irrigation systems per project; and

-80 percent of public and common landscape areas will use drought-tolerant, native, and/or water-efficient plant materials per project.

(See http://www1.eere.energy.gov/femp/program/waterefficiency_bmp5.html; see also <http://www.water.ca.gov/wateruseefficiency/landscape/>.)"

30.PLANNING 116

PRIOR TO ANY SP - MITIG MEASURE 6.24-8
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT FINAL INSPECTION, the following language shall be added to the implementing project:

Mitigation Measure 6.24-8 from EIR514 requires:

Prior to grading final for each implementing project, the applicant or their contractor shall submit to the appropriate Public Works Department for review and approval of a site construction management plan for the reuse and recycle construction and demolition waste (including soil, vegetation, concrete, lumber, metal, and cardboard). (See <http://www.ciwmb.ca.gov/condemo/>)."

30.PLANNING 117

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-9

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-9 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of reuse and recycling measures in residential, industrial, and commercial projects consistent with measures recommended in the CAP. In accordance with the CAP, the applicant shall provide evidence that the building is consistent with the following Specific Plan-wide recycling and waste reduction measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following recycling and waste reduction measures:

- Provide recycling containers within all multi-family residential communities;
- Provide recycling containers within all commercial, office, and light industrial buildings;
- Provide containers for community composting within all multi-family residential communities; and
- Provide containers for community composting within all commercial, office, and light industrial buildings.

(See <http://zerowaste.ca.gov>; see also <http://www.ca-ilg.org/wastereduction>)."

30.PLANNING 118

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-10

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT, the following language shall be added to the implementing project:

Mitigation Measure 6.24-10 from EIR514 requires:

Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of "smart growth" principles to reduce GHG emissions (i.e., ensure mixed-use, infill and higher density projects provide alternatives to individual vehicle travel and promote efficient delivery of goods and services) consistent with measures recommended in the CAP. In accordance with the CAP, the applicant shall provide evidence that the building is consistent with the following Specific Plan-wide "smart growth" measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following "smart growth" measures:

-60 percent of building frontages will have the principal functional entry facing a public space such as a street, square, park, paseo, or plaza, but not a parking lot based on type of project;

-75 percent of mixed-use streets shall have minimum 8-foot-wide sidewalks that front primarily commercial retail uses and all other areas will have minimum 4-foot-wide sidewalks;

-60 percent of all housing with a density of 7 dwelling units per acre or more will lie within 0.5 mile of a transit stop;

(See <http://www.epa.gov/smartgrowth/index.htm>.)"

30.PLANNING 119

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.24-11

Status: INEFFECT
Conditions: Outstanding

Mitigation Measure 6.24-11 from EIR514 requires:

Prior to implementing project approval for each tract map, the applicant shall preserve existing trees, to the extent feasible and encourage the planting of new trees consistent with the final landscape palette in the Specific Plan. Removed trees shall be replaced at a minimum 1:1 ratio in accordance with acceptable tree species defined in the final landscape palette.

(See <http://www.epa.gov/dced/brownfields.htm>)

30.PLANNING 123

PRIOR TO ANY PROJECT APPROVAL SP - TOTAL BP/DU TRKNG

Status: INEFFECT
Conditions: Outstanding

Prior to the approval of any implementing project, the applicant shall provide a "SP375 Total Dwelling Unit Tracking Spreadsheet." This spreadsheet shall be considered part of the SPECIFIC PLAN. Over time, this spreadsheet will track per Planning Area entitled units, tentative tract map units, final map recorded units and units actually built within every Planning Area in the SPECIFIC PLAN. The purpose of this tracking sheet is to enable the Planning Department to ensure compliance with the established Planning Area development ranges as outlined in Table 3-11 of the SPECIFIC PLAN. This sheet will also be used to ensure constancy with the separate tracking spread sheet referenced in condition 10.Planning.58 DU/BUILDING PERMIT MATRIX.

This condition cannot be DEFERRED or set to NOT APPLICABLE"

30.PLANNING 124

PRIOR TO ANY SP - TILE DRAINS (1)
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

PRIOR TO THE APPROVAL OF ANY IMPLEMENTING PROJECT (i.e. Tentative Map, Plot Plan, Conditional Use Permit, and/or Public Use Permit), given the high ground water table in the project area, all implementing projects must provide a letter from Coachella Valley Water District (CVWD) indicating that the subsurface drainage facilities (tile drains) in the implementing project area can accommodate the new urban drainage to the satisfaction of CVWD.

30.PLANNING 125

PRIOR TO ANY SP - TILE DRAINS (2)
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

PRIOR TO THE APPROVAL OF ANY IMPLEMENTING PROJECT (i.e. Tentative Map, Plot Plan, Conditional Use Permit, and/or Public Use Permit), given the high ground water table in the project area, all implementing projects must provide a letter from Coachella Valley Water District (CVWD) indicating that the boundaries shown on the APPROVED TENTATIVE MAP and/or SITE PLAN shall become annexed, incorporated, and/or included to the satisfaction of the Colorado River Basin Water Quality Control Board into the National Pollution Discharge Elimination System Permit (NPDES) program as detailed by CVWD and as well the project shall annexed, incorporated, and/or included to the satisfaction of the Colorado River Basin Water Quality Control Board into the Waste Discharge Requirements for the discharge of stormwater into the Whitewater River Watershed, which is known as the MS4 Permit, to the satisfaction of CVWD.

30.PLANNING 126

PRIOR TO ANY SP - TILE DRAINS (3)
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

PRIOR TO THE APPROVAL OF ANY IMPLEMENTING PROJECT (i.e. Tentative Map, Plot Plan, Conditional Use Permit, and/or Public Use Permit), given the high ground water table in the project area, all implementing projects must provide a letter from Coachella Valley Water District (CVWD) indicating that the boundaries shown on the APPROVED TENTATIVE MAP and/or SITE PLAN shall become annexed, incorporated, and/or included to the satisfaction of CVWD into a future district(s) for recovery of capital and operation/maintenance costs associated with any tile/subsurface drainage system, to the satisfaction of CVWD.

30.PLANNING 127

PRIOR TO ANY SP - COMM FACILITY FINC SEC
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the submittal of any implementing project within a Planning Area of the SPECIFIC PLAN, as outlined in exhibit B.6.16 of the SPECIFIC PLAN, the applicant shall provide financial securities for all community facilities improvements required within the respective Planning Area. All required improvements shall be completed within five (5) years of the approval of the first implementing project within the Planning Area. If any portion of the required community facilities improvements are not completed after five (5) years the County shall use the financial securities provided by the applicant to fund the completion of the

remaining improvements. If all community facilities improvements are completed prior to the five (5) year requirement, all financial securities shall be returned to the applicant in full. Satisfaction of this condition shall be at the discretion of the Planning Director. No implementing project shall be approved unless evidence of secured financial securities for all community facilities improvements within the Planning Area is presented.

This condition cannot be waived, DEFERRED or set to NOT APPLICABLE. The condition shall be set to MET at the project level individually for each project prior to a project approval.

30.PLANNING 128

PRIOR TO ANY PROJECT APPROVAL MM - CVWD SPECIAL AGREEMENT

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Prior to building final inspection for the first residential unit and/or commercial unit within the Riverside County portion of the proposed project, the applicant shall execute a Special Agreement, with for CVWD to design, permit, construct, operate, and maintain an expandable wastewater treatment plant and nonpotable water storage and distribution system that shall be sized to initially accommodate approximately 3.0 mgd, or as approved by CVWD. Wastewater treatment and reuse facilities are provided for in Planning Area 4-3 or alternately an off-site location as provided for in the Wastewater Master Plan (see Figure 3.0-21). The project applicant shall provide necessary funding for the construction of this facility. All wastewater treatment facilities will be creditable toward the facilities component of CVWD's Sanitation Capacity charge for all residential, commercial, and industrial structures within CVWD's portion of the project boundary. The applicant's financial responsibility for these facilities is only for those components of the wastewater treatment facilities necessary to provide wastewater treatment for the proposed project's and its associated effluent."

30.PLANNING 150

PRIOR TO ANY PROJECT APPROVAL SP - ARCHAEO STUDY REQD

Status: Conditions:
INEFFECT Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO PROJECT APPROVAL, a complete archaeological study shall be submitted to the Planning Department for review and approval. Adequate archaeological investigation shall be conducted to provide significance evaluations pursuant to CEQA for all cultural resources identified. This condition shall be considered MET if the relevant study has been approved by the Planning Department. This condition may be considered as NOT APPLICABLE if the Planning Department determines that the required study is not necessary.

The submittal of this study mandates that a CEQA determination of an Addendum to a previously adopted EIR be made, at a minimum."

30.PLANNING 151 SP - PALEO M/M PROGRAM

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall enter into an agreement with a qualified paleontologist. This agreement shall include, but not be limited to, the preparation of a project specific paleontological resources impact mitigation program (PRIMP) to be implemented during the process of grading. A copy of said agreement and PRIMP shall be submitted to the County Geologist for review. No grading permit will be issued until the project specific agreement and PRIMP is reviewed and approved by the County Geologist.

30.PLANNING 153

PRIOR TO ANY SP - ARCHAEO M/M PROGRAM
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall enter into an agreement with a qualified archaeologist. This agreement shall include, but not be limited to, the preliminary mitigation and monitoring procedures to be implemented during the process of grading, as found in the Master Cultural Resources Plan for this Specific Plan. A copy of said agreement shall be submitted to the Planning Department. No grading permits will be issued unless the preliminary mitigation and monitoring procedures required prior to grading permits as described in the Master Cultural Resources Plan are substantially complied with."

30.PLANNING 154

PRIOR TO ANY SP - MITIG MEASURE 6.16-7
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to approval of any subsequent actions to implement the project in planning areas as defined in the specific plan located adjacent to western boundary of the site, a landscaping plan shall be developed and submitted for drainage channels along the western perimeter of the project site. The landscaping plan shall require the planting of native plant species with thorns, such as cat-claw acacia and mesquite shrubs, adjacent to walls and trails on the western boundary of the site. This plan must be reviewed and approved by the Riverside or Imperial County Planning Director for the portions of the project located in each county.

30.PLANNING 155

PRIOR TO ANY SP - MITIG MEASURE 6.4-25
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUIDLING PERMIT FINAL INSPECTION, the following

language shall be added to the implementing project:

Mitigation Measure 6.4-25 from EIR514 requires:

Prior to building final inspection for each implementing project, a public awareness program shall be developed by the homeowners' association (HOA), or an acceptable land manager/agency, as approved by the Riverside County Environmental Programs Department, to educate residents of the proposed project about impacts to biological resources resulting from increased human and domestic animal presence in the area. The public awareness program shall address the impact domestic cats have on local wildlife populations (especially birds and small mammals), to encourage pet owners to keep their cats indoors. This program shall include supplying educational information to future residents of the project site regarding the importance of preventing unleashed domestic animals from entering ecologically sensitive areas within the proposed project (Open Space [Conservation]) or areas adjacent to the project site (such as ABDSP, SRSJM National Monument, or other state or federally protected lands) and of prohibiting off-leash domestic animals from disturbing native wildlife species. The public awareness program shall specifically address potential indirect impacts to Peninsular bighorn sheep associated with human and domestic animal presence in the rocky hills and mountains. In addition, the public awareness program will include discussion of cryptobiotic soils and their role in preserving desert soils, promoting nitrogen fixation, storing atmospheric carbon, and preventing erosion by wind and water."

30.PLANNING 156

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-16

Status: INEFFECT Conditions: Outstanding

Prior to the first implementing project approval, the applicant shall provide evidence that a payment to the Salton Sea Authority in the amount of \$100,000 for IFD formation has been paid.

*This Condition was added as a result of the RRDEIR.

30.PLANNING 157

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.3-17(1)

Status: INEFFECT Conditions: Outstanding

Prior to the first implementing project approval, the applicant shall provide evidence that an arrangement has been made to provide a payment to the Salton Sea Authority the amount of \$25,000 to be paid annually for a period of 10 years for use in administering the IFD.

*This Condition was added as a result of the RRDEIR.

30.PLANNING 158

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.5-6

Status: INEFFECT Conditions: Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Mitigation Measure 6.5-6 from EIR514 (as revised by the RRDEIR) requires:

In order to ensure that residents of the project do not gain access through the project to the Anza Borrego State Park or other adjacent offsite open space areas the applicant shall implement the following program prior to grading final for the first implementing project: (1) Pay \$25,000 annually to the Torres Martinez Desert Cahuilla Indians (TMDCI), for 10 years for the expansion of the TMDCI conservation/patrol officer program to provide supplemental patrols along the edge of the project adjacent to offsite park and open space areas to prevent project residents and visitors from accessing these adjacent areas from the project. (2) Provide authorization for the TMDCI patrols to access the applicant's property and patrol the edge of the project; (3) Create a volunteer Citizens Patrol, similar to the successful volunteer patrols in other Coachella Valley cities and communities, to supplement the TMDCI patrols along the boundary of the project with adjacent park lands. A local Community Policing office would be located on the Travertine Point Specific Plan site to support this program; and (4) Create a volunteer docent program, similar to the successful volunteer programs in other Coachella Valley cities and communities, to assist in educating residents on the importance and sensitivity of nearby cultural resources and park lands."

30.PLANNING 159

PRIOR TO ANY PROJECT APPROVAL SP - MITIG MEASURE 6.11-11

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

Mitigation Measure 6.11-11 from EIR514 (as revised by the RRDEIR) requires:

Prior to building final inspection, permit applicants shall provide to the County Planning Department a disclosure document form, to be provided to all future property owners (residential and commercial), disclosing that the property is subject to overflight from military aircraft. The disclosure form shall be provided to all future property owners within the Project site, after review and approval by the County Planning Department."

30.PLANNING 160

PRIOR TO ANY PROJECT APPROVAL SP - TEMP PERIM FENCING

Status: Conditions:
INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

PRIOR TO THE ISSUANCE OF A GRADING PERMIT temporary construction fencing (chain link) shall be installed along the projects entire western perimeter as shown in exhibit 3-30 of the SPECIFIC PLAN. If said fencing has already been installed and is in place, this condition shall be set to not apply.

*This Condition was added as a result of discussions at the December 13, 2011 Board Hearing.

30.PLANNING 161

SP - PERMANENT PERIM FENCING

Status: Conditions:

PRIOR TO ANY
PROJECT APPROVAL

INEFFECT **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT the temporary fencing required in Condition of Approval 30.PLANNING.160 for the area that borders the entire planning area where this development is being proposed (regardless of the proximity of the proposed development to the actual edge of the SPECIFIC PLAN), shall be replaced with permanent fencing that shall consist of tube steel, wrought iron, block wall, or similar permanent fencing as shown in exhibit 3-30 of the SPECIFIC PLAN. If said fencing has already been installed and is in place, this condition shall be set to not apply. To be clear, it is the responsibility of the first proposed development (commercial or residential) within the Planning Area to construct all fencing for the entire Planning Area as it relates to the western edge of the SPECIFIC PLAN.

With respect to the fencing along the edge of Planning Area 1-17, permanent fencing that shall consist of tube steel, wrought iron, block wall, or similar permanent fencing as shown in exhibit 3-30 of the SPECIFIC PLAN shall be installed prior to the operation of any portion of the site that would constitute any use other than the current (as of 2012) waste management use of the site.

*This Condition was added as a result of discussions at the December 13, 2011 Board Hearing.

30.TRANS 001

PRIOR TO ANY SP - SP375/IMPROVEMENTS
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

All roads shall be improved to the recommended General Plan or Specific Plan designation, as approved by the County Board of Supervisors, or as approved by the Transportation Department. If there is a conflict between the General Plan and Specific Plan, the General Plan designation would prevail unless specific findings are made by the County that the Specific Plan improvement is consistent with the General Plan.

30.TRANS 002

PRIOR TO ANY SP - SP375/PAYMENT OF FEES
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

The project proponent shall be required to pay all applicable fees in accordance with the fee schedule in effect at the time of development.

30.TRANS 003

PRIOR TO ANY SP - SP375/TS REQUIRED
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

During the District Refinement Plan (DRP) process, the project proponent shall prepare a Traffic Impact Analysis (TIA), in accordance with Riverside County guidelines, for each "Development District" within the SP. The District-level traffic analysis will be a refinement of the SP Traffic Impact Analysis and shall determine the need and timing of improvements needed to mitigate the traffic impacts of each Development District under conditions existing at the time of the DRP. In addition, TIAs for individual implementing projects may be required for individual

implementing projects within the boundaries of SP00375, at the discretion of the Transportation Department. TIAs for individual implementing projects, if needed, shall identify the impacts of the implementing project and needed transportation system improvements to be constructed prior to each implementing project.

Site-specific focused traffic studies may be required for subsequent implementing projects within the boundaries of SP00375. These subsequent traffic studies shall identify specific project impacts and needed transportation system improvements to be constructed in conjunction with each project.

Each implementing project shall make all necessary on-site and off-site improvements to achieve/maintain adequate LOS at all locations.

If development within SP00375 occurs in a different order than stated in 10.3 TRANS. SP - SP375/ DEFINITION OF PROJECT PHASES BY PLANNING AREA, or if phases overlap substantially, a new DRP-level or project-level TIA may be required to determine if any improvements from the prior un-built phase need to be constructed to mitigate impacts by the phase being developed.

All improvements on Caltrans facilities shall conform to Caltrans design guidelines and shall be subject to Caltrans approval.

If any improvements proposed by the applicants for individual projects are found to be infeasible, the applicants for individual projects will be required to provide alternative feasible improvements to achieve levels of service satisfactory to the County.

All intersection spacing for individual tracts, parcel maps, CUPs, or plot plans shall conform to the minimum County intersection spacing standards.

All turn pocket lengths shall conform at least to the minimum County turn pocket length standards.

30.TRANS 004

PRIOR TO ANY SP-SP375/SR-86 & SR-86S ML IMP
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

Prior to the issuance of any building permit for any implementing projects within SP00375, Riverside County shall prepare a financial plan to make mainline improvements to add one lane in each direction on SR-86S/SR-86 between 62nd Avenue and Marina Drive in Imperial County and to construct interchanges at SR-86S/62nd Avenue, SR-86S/66th Avenue, SR-86S/70th Avenue, SR-86S/74th Avenue, SR-86S/81st Avenue, SR-86/Town Center Way North, SR-86/Desert Shores Drive, SR-86/Brawley Avenue, SR-86/Sea Oasis Boulevard, and SR-86/Marina Drive. The financial plan shall identify the cost of the improvements based on a Preliminary Engineering study. In addition to fair share developer contributions, the financial plan shall consider funding that may be available through CVAG, RCTC, or other agencies. The County will assist in obtaining available funding that is, or may become available, through CVAG, RCTC, and other agencies, as appropriate.

Prior to the issuance of any building permit for any implementing projects within SP00375, Riverside County shall conduct a Nexus Study, based on the financial plan, and establish an RBBD or other funding mechanism in accordance with the Nexus Study recommendations.

If the County has not formed an RBBD or other area-wide funding mechanism for SR-86/SR-86S improvements at the time the proponent of SP00375 or any subsequent implementing agencies are ready to request building permits, , the project proponent shall establish a Community Facilities District (CFD) or other funding mechanism, prior to the issuance of any building permit within SP00375, to help fund its share of the cost of SR-86S/SR-86 mainline improvements (SP00375's fair share is estimated preliminarily as 37% of the total cost of the SR86 additional lane improvements) and its share of interchange construction at SR-86S/81st Avenue and at SR-86/Town Center Way North (SP00375's share is estimated preliminarily as 95 to 100% of the total cost).

Prior to the issuance of any building permit for any implementing projects within SP00375, the project proponent shall deposit with Riverside County the funds necessary for the County to prepare the Preliminary Engineering Study, the Financial Plan, and the Nexus Study (" the studies"). The project proponent shall be eligible for fee credits, fee credits not to exceed the amount of actual costs for the Studies, after the establishment of the RBBD or other corridor-wide funding mechanism.

After building permits for 1,608 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until the project proponent, or implementing projects within SP00375, have deposited funds for Riverside County to prepare an environmental document for adding one lane in each direction along SR-86S/SR-86 between 62nd Avenue and Marina Drive in Imperial County. The project proponent, or the implementing projects, will be eligible for fee credits, fee credits not to exceed the amount of actual costs for the Studies, after the establishment of the RBBD or other area-wide funding mechanism. Based on subsequent traffic studies and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted.

After building permits for 5,718 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until Riverside County obtains environmental clearance to add one lane in each direction along SR-86S/SR-86 between 62nd Avenue and Marina Drive in Imperial County. Based on subsequent traffic studies and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted. TUMF credit, where eligible, shall be provided in accordance with CVAG's policies and approvals.

After building permits for 5,718 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until SR-86 has been improved to add one lane in each direction between the northern boundary of SP00375 and Town Center Way North. Based on subsequent traffic studies and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted.

After building permits for 11,864 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until a construction contract, or contracts shall have been let to improve SR-86S/SR-86 to add one lane in each direction between 62nd Avenue and Marina Drive in Imperial County.

After building permits for 12,788 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until SR-86S/SR-86 shall have been constructed to provide three lanes in each direction between 62nd Avenue and Marina Drive in Imperial County. Depending on the progress of construction and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted.

30.TRANS 005

PRIOR TO ANY PROJECT APPROVAL SP-SP375/IMPVTS SR-86 & SR86S

Status: Conditions:
INEFFECT **Outstanding**

Prior to the issuance of any building permit for any implementing projects within SP00375, the project proponent shall obtain Caltrans approval to install a traffic signal and construct eastbound and westbound left turn lanes at the intersection of SR-86S and 81st Avenue.

Prior to the issuance of any building permit for any implementing projects within SP00375, the project proponent shall obtain Caltrans approval to install a traffic signal at the intersection of SR-86 and Lincoln Street (between 83rd Avenue and 84th Avenue) and to provide a southbound left turn lane. The signal at this location will be temporary and shall be removed when a grade separation (no access to SR-86) is constructed at this location.

Prior to the issuance of the 659th occupancy permit within SP00375, or earlier if the need is indicated in traffic studies for implementing projects, the proponent of SP00375 and/or implementing projects shall install and activate a traffic signal at SR-86S and 81st Avenue, and shall construct eastbound and westbound left turn lanes.

Prior to the issuance of the 659th occupancy permit, or earlier if the need is indicated in traffic studies for implementing projects, the proponent of SP00375 and/or implementing projects shall install and activate a traffic signal at SR-86 and Lincoln Street, and shall provide a southbound left turn lane. Access at this location shall be temporary, and the signal at this location shall be removed when a grade separation (no access to SR-86) is constructed.

After building permits for 8,139 residential units have been issued, no further building permit, or permits, shall be issued for any residential or non-residential implementing project in SP00375 until the proponent of SP00375, and/or implementing projects within the SP, shall have constructed a new interchange on SR-86 at Town Center Way North (approximately at 85th Avenue).

Where the need is indicated in Traffic Impact Analyses (TIAs) to be conducted during the District Refinement Process (DRP) or based on TIAs for specific implementing projects, taking into consideration conditions prevailing at the time, and unless otherwise implemented by others, the proponent of SP00375 and/or implementing projects shall install and activate off-site traffic signals and construct additional turning or through lanes at intersections along SR-86S/SR-86

(between 62nd Avenue and Marina Way) when needed to mitigate the traffic impacts of implementing projects within SP00375, or shall make in lieu payments, or as approved by the Director of Transportation.

30.TRANS 006

PRIOR TO ANY SP - SP375/TRAFFIC SIGNALS

PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

The project proponent, or the implementing projects within the SP, shall be responsible for the design, installation and necessary modifications to all on-site traffic signals. Signals shall be installed, modified as needed, and shall be operational, or other traffic control measures, such as roundabouts shall be installed at the locations indicated in Exhibit 2.1C and Exhibits 6.2-B through 6.2-T of the TSS dated August 5, 2010.

Where the need is indicated in DRP-level or project-level TIAs and , unless the signals are designed and installed by others, the project proponent, or the implementing projects within the SP, shall also be responsible for the design, installation and necessary modifications to off-site traffic signals at the intersections listed below. Any on-site intersections on SR-86 and SR-86S are included in the "off-site" list, since they will help accommodate external traffic.

Prior to the issuance of any certificates of occupancy that would result in more than 658 dwelling units in SP00375, or sooner if the need is indicated in project-level TIAs, the following signals shall be installed and operational:

SR-86S (NS) at: 81st Avenue (EW)

SR-86 (NS) at: Lincoln Street (EW)

with no credit given for Traffic Signal Mitigation Fees

Prior to the issuance of any certificates of occupancy that would result in more than 2,600 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following signals shall be installed and operational:

81st Avenue (EW) at: Paseo Street (NS)

Prior to the issuance of any certificates of occupancy that would result in more than 2,818 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following signals shall be installed and operational, with credit toward signal mitigation fees if the signal is included in the DIF needs list at the time of installation.

Harrison Street (NS) at: 62nd Avenue (EW)

Harrison Street (NS) at: 66th Avenue (EW)

Harrison Street (NS) at: 70th Avenue (EW)

Harrison Street (NS) at: 74th Avenue (EW)

Harrison Street (NS) at: Pierce Street (EW)

Unless DRP-level or project-level TIAs indicate that one or more signals are not needed or can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 3,071 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level traffic studies, the following signals shall be installed and operational:

81st Avenue (EW) at: Harrison Street/SR-86 (NS)

with no credit given for Traffic Signal Mitigation Fees

Prior to the issuance of any certificates of occupancy that would result in more than 3,478 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level traffic studies, the following signals shall be installed and operational:

SR-86 (NS) at: Town Center Way (EW)

with no credit given for Traffic Signal Mitigation Fees

Prior to the issuance of any certificates of occupancy that would result in more than 5,284 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level traffic studies, the following signals shall be installed, or modified, and operational, with credit toward signal mitigation fees if the signal is included in the DIF needs list at the time of installation.

Harrison Street (NS) at: 72nd Avenue (EW)

Harrison Street (NS) at: 78th Avenue (EW)

SR-86S (NS) at: 70th Avenue (EW)

SR-86S (NS) at: 74th Avenue (EW)

SR-86 (NS) at: Desert Shores Drive (EW)

SR-86 (NS) at: Brawley Avenue (EW)

SR-86 (NS) at: Sea Oasis Boulevard (EW)

SR-86 (NS) at: Marina Drive (EW)

unless otherwise approved by Imperial County, or DRP-level or project-level TIAs indicate that one or more signals are not needed or can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 13,260 dwelling units in SP00375, or sooner if the need is indicated in DRP-level traffic studies, signals shall be installed, modified as needed, and shall be operational, or other traffic control measures, such as roundabouts, shall be installed at the locations indicated in Exhibit 2.1C and Exhibits 6.2-B through 6.2-T of the TSS dated August 5, 2010.

with no credit given for Traffic Signal Mitigation Fees

The modification of traffic signals to accommodate the phased improvements shall be the responsibility of the SP00375 proponent or the implementing projects.

30.TRANS 008

PRIOR TO ANY SP - SP375/GEOMETRICS
PROJECT APPROVAL

Status: Conditions:
INEFFECT **Outstanding**

The project proponent, or the implementing projects within the SP, shall be responsible for the necessary improvements or modifications at all on-site intersections. The improvements shall be made at the locations indicated and with the number of lanes as specified in Exhibit 2.1C and Exhibits 6.2-B through 6.2-T of the TSS dated August 5, 2010.

Where the need is indicated in DRP-level or project-level TIAs and, unless the improvements are made by others prior to the time they are needed, the project proponent, or the implementing projects within the SP, shall also be responsible for the improvements at the off-site intersections listed below. If eligible under any applicable funding programs in effect at the time of implementation, these improvements may qualify for fee credits. Any on-site intersections on SR-86 and SR-86S are included in the "off-site" list, since they will help accommodate external traffic.

While the intersection improvements, both on-site and off-site, may be made in phases as the need arises, all improvements shall be designed and constructed to be consistent with the ultimate configuration of the intersection. All improvements listed below can be deferred to a later stage, or accelerated to an earlier stage of development, subject to the approval of the Director of Transportation based on subsequent traffic studies. Depending on the progress of construction and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted.

Prior to the issuance of any certificates of occupancy that would result in more than 658 dwelling

units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of SR-86S (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one right turn lane Southbound:One left turn lane, two through lanes, one right turn lane Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of SR-86S (N/S) and Lincoln Street (E/W) shall provide the following geometrics:

Northbound:Two through lanes, one right turn lane Southbound:One left turn lane, two through lanes Eastbound:N/A Westbound:One left turn lane, one shared through/right turn lane

The intersection of Paseo Street (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One shared left turn/right turn lane - stop control Southbound:NA Eastbound:One shared through/right turn lane Westbound:One shared left turn/through lane

The intersection of Lincoln Street (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane Southbound:NA Eastbound:One right turn lane Westbound:NA

Prior to the issuance of any certificates of occupancy that would result in more than 2,818 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following offsite intersection improvements shall be made. If eligible under any applicable funding programs in effect at the time of implementation, these improvements may qualify for fee credits.

The intersection of Harrison Street (N/S) and 62nd Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:One left turn lane, one through lane, one right turn lane Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of Harrison Street (N/S) and 66th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:One left turn

lane, one through lane, one right turn lane Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of Harrison Street (N/S) and 70th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one shared through/right turn lane Southbound:One left turn lane, one shared through/right turn lane Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of Harrison Street (N/S) and 74th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:One left turn lane, one through lane, one right turn lane Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of Harrison Street (N/S) and Pierce Street (E/W) shall provide the following geometrics:

Northbound:One through lane, one right turn lane Southbound:One left turn lane, one through lane Eastbound:N/A Westbound:One left turn lane, one right turn lane

The intersection of SR-86S (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one right turn lane Southbound:Two left turn lanes, two through lanes, one right turn lane Eastbound:One left turn lane, one through lane, one right turn lane Westbound:One left turn lane, one through lane, one right turn lane with overlap phasing

NOTE: Signal modification will be necessary to accommodate a second southbound left turn lane, an eastbound right turn lane and a westbound right turn lane with overlap phasing.

The intersection of Paseo Street (NS) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one right turn lane Southbound:N/A Eastbound:One through

lane, one right turn lane Westbound:One left turn lane, one through lane

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 2,818 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of Harrison Street/Village Way (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:Two left turn lanes, one shared through/right turn lane Eastbound:One shared left turn/through lane, one right turn lane Westbound:Two left turn lanes, one shared through/right turn lane

unless DRP-level or project-level TIAs indicate improvements at this intersection are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 3,478 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of SR-86 (N/S) and Town Center Way North (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one shared through/right turn lane
Southbound:One left turn lane, two through lanes, one right turn lane with overlap
Eastbound:Two left turn lanes, two through lanes, one right turn lane Westbound:One left turn lane, two through lanes, one right turn lane

unless DRP-level or project-level TIAs indicate improvements at this intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 5,284 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following offsite intersection improvements shall be made. If eligible under any applicable funding programs in effect at the time of implementation, these improvements may qualify for fee credits.

The intersection of Harrison Street (N/S) and 64th Avenue (E/W) shall provide the following

geometrics:

Northbound:One shared through/right turn lane Southbound:One shared left turn/through lane
Eastbound:NA Westbound:One shared left turn/right turn lane - stop control

The intersection of Harrison Street (N/S) and 72nd Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one shared through/right turn lane Southbound:One left turn lane,
one shared through/right turn lane Eastbound:One shared left turn/through/right turn lane
Westbound:One shared left turn/through/right turn lane

The intersection of Harrison Street (N/S) and 74th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:One left turn
lane, one through lane, one right turn lane Eastbound:One left turn lane, one shared through/right
turn lane Westbound:One left turn lane, one shared through/right turn lane

NOTE: Signal modification will be necessary to accommodate an eastbound left turn lane and a westbound left turn lane.

The intersection of Harrison Street (N/S) and Pierce Street (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one right turn lane Southbound:One left turn
lane, one shared through/right turn lane Eastbound:One shared left turn/through/right turn lane
Westbound:One left turn lane, one shared through/right turn lane

NOTE: Signal modification will be necessary to accommodate a northbound left turn lane.

The intersection of Harrison Street (N/S) and 78th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one right turn lane Southbound:One left turn
lane, two through lanes, one right turn lane Eastbound:One left turn lane, one shared
through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of Harrison Street (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, three through lanes, one right turn lane with overlap phasing
Southbound:Two left turn lanes, two through lanes, one shared through/right turn lane
Eastbound:One left turn lane, one through lane, one shared through/right turn lane
Westbound:Two left turn lanes, one through lane, one free-flow right turn lane

NOTE: Signal modification will be necessary to accommodate three northbound through lanes, overlap phasing on the northbound approach, three southbound through lanes, and a westbound right turn lane.

The intersection of Polk Street (N/S) and 74th Avenue (E/W) shall provide the following geometrics:

Northbound:NA Southbound:One shared left turn/right turn lane - stop control Eastbound:One shared left turn/through lane Westbound:One shared through/right turn lane

The intersection of Fillmore Street (N/S) and 78th Avenue (E/W) shall provide the following geometrics:

Northbound:One shared left turn/right turn lane - stop control Southbound: NA Eastbound:One shared through/right turn lane Westbound:One shared left turn/through lane

The intersection of SR-86S (N/S) and 62nd Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one shared through/right turn lane
Southbound:One left turn lane, two through lanes, one shared through/right turn lane
Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

NOTE: Signal modification will be necessary to accommodate three northbound through lanes, three southbound through lanes, an eastbound left turn lane, and a westbound left turn lane.

The intersection of SR-86S (N/S) and 66th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one shared through/right turn lane
Southbound:One left turn lane, two through lanes, one shared through/right turn lane
Eastbound:One left turn lane, one shared through/right turn lane Westbound:Two left turn lanes, one shared through/right turn lane

NOTE: Signal modification will be necessary to accommodate three northbound through lanes, three southbound through lanes, an eastbound left turn lane, and two westbound left turn lanes.

The intersection of SR-86S (N/S) and 70th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one shared through/right turn lane

Southbound:One left turn lane, two through lanes, one shared through/right turn lane
Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane,
one shared through/right turn lane

The intersection of SR-86S (N/S) and 74th Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one shared through/right turn lane
Southbound:One shared left turn/through lane, one through lane, one shared through/right turn
lane Eastbound:One shared left turn/through/right turn lane Westbound:One shared left
turn/through/right turn lane

The intersection of SR-86 (N/S) and Desert Shores Drive (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one right turn lane Southbound:One left turn
lane, two through lanes, one shared through/right turn lane Eastbound:One left turn lane, one
shared through/right turn lane Westbound:One left turn lane, one shared through/right turn lane

The intersection of SR-86 (N/S) and Brawley Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one shared through/right turn lane
Southbound:One left turn lane, two through lanes, one right turn lane Eastbound:One shared left
turn/through/right turn lane Westbound:One shared left turn/through/right turn lane

The intersection of SR-86 (N/S) and Sea Oasis Boulevard (E/W) shall provide the following geometrics:

Northbound:One shared left turn/through lane, one shared through/right turn lane
Southbound:One left turn lane, one through lane, one shared through/right turn lane
Eastbound:One shared left turn/through/right turn lane Westbound:One shared left
turn/through/right turn lane

The intersection of SR-86 (N/S) and Marina Drive (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one through lane, one shared through/right turn lane
Southbound:One left turn lane, one through lane, one shared through/right turn lane
Eastbound:One left turn lane, one shared through/right turn lane Westbound:One left turn lane,
one shared through/right turn lane

The intersection of Village Way (N/S) and 82nd Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes Southbound:Two through lanes, one right turn
lane Eastbound:One left turn lane, one right turn lane Westbound:NA

The intersection of Travertine Estates (N/S) and Paseo Street (E/W) shall provide the following geometrics:

Northbound:One shared left turn/through/right turn lane Southbound:One shared left turn/through/right turn lane Eastbound:One shared left turn/through/right turn lane Westbound:One shared left turn/through/right turn lane

The intersection of A Street (N/S) and Desert Shores Drive (E/W) shall provide the following geometrics:

Northbound:One shared left turn/through/right turn lane Southbound:One shared left turn/through/right turn lane Eastbound:One shared left turn/through/right turn lane Westbound:One shared left turn/through/right turn lane

The intersection of Sea Oasis Drive (N/S) and Travertine Estates (E/W) shall provide the following geometrics:

Northbound:One shared left turn/through lane Southbound:One shared through/right turn lane Eastbound:One shared left turn/right turn lane Westbound:NA

The intersection of Sea Oasis Drive (N/S) and Desert Shores Drive (E/W) shall provide the following geometrics:

Northbound:One shared left turn/through/right turn lane Southbound:One shared left turn/through/right turn lane Eastbound:One shared left turn/through/right turn lane Westbound:One shared left turn/through/right turn lane

unless otherwise approved by Imperial County, or unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 5,464 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of Lincoln Street (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, one shared through/right turn lane Southbound:One shared left turn/through/right turn lane Eastbound:One shared left turn/through/right turn lane Westbound:One shared left turn/through/right turn lane

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of

development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 5,718 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of SR-86 (N/S) and Town Center Way North (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes Southbound:One left turn lane, two through lanes, one right turn lane with overlap Eastbound:Two left turn lanes, one through lane, one right turn lane Westbound:One left turn lane, one through lane, one right turn lane

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 5,770 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of SR-86S (N/S) and 81st Avenue (E/W) shall provide the following geometrics:

Northbound:One left turn lane, two through lanes, one shared through/right turn lane Southbound:Two left turn lanes, three through lanes, one right turn lane Eastbound:Two left turn lanes, two through lanes, one right turn lane Westbound:One left turn lane, two through lanes, one right turn lane with overlap phasing

NOTE: Signal modification will be necessary to accommodate three northbound through lanes, three southbound through lanes, two eastbound left turn lanes, two eastbound through lanes, and two westbound through lanes.

unless DRP-level or project-level TIAs indicate improvements at this intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

Prior to the issuance of any certificates of occupancy that would result in more than 8,139 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level TIAs, the following intersection improvements shall be made:

The intersection of Paseo Street (N/S) and 81st Avenue (E/W) shall provide the following

geometrics:

Northbound:One left turn lane, one shared left turn/through/right turn lane Southbound:One left turn lane, one shared through/right turn lane Eastbound:One left turn lane, one through lane, one right turn lane Westbound:One left turn lane, one shared through/right turn lane

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

NOTE: Signal modification will be necessary to accommodate a northbound left turn lane, the southbound approach, eastbound left turn and right turn lanes, and the westbound left turn lane.

The intersection of SR-86 Southbound Ramps (N/S) and Town Center Way (E/W) shall provide the following geometrics:

Northbound:NA Southbound:Two left turn lanes, two right turn lanes Eastbound:Two through lanes, two right turn lanes Westbound:Two through lanes, one right turn lane

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

The intersection of SR-86 Northbound Ramps (N/S) and Town Center Way (E/W) shall provide the following geometrics:

Northbound:Two left turn lanes, one right turn lane Southbound:NA Eastbound:Two through lanes, two right turn lanes Westbound:Two through lanes, two right turn lanes

unless DRP-level or project-level TIAs indicate improvements at one or more intersections are not needed, or fewer lanes are needed, or improvements can be deferred to a later stage of development, subject to approval by the Director of Transportation.

All improvements on Caltrans facilities shall conform to Caltrans design guidelines and shall be subject to Caltrans approval.

All improvements listed are requirements for interim conditions only. Full right-of-way and roadway half sections adjacent to the SP00375 property for the ultimate roadway cross-section per the County's Road Improvement Standards and Specifications must be provided.

All implementing projects within the SP00375 shall be subject to a condition of approval providing that: Any off-site widening required to provide these geometrics shall be the responsibility of the landowner/developer, consistent with Riverside County Ordinance 460 Section 3.2J.

30.TRANS 009
PRIOR TO ANY SP - SP375/PEDESTRIAN PATHS Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

The project proponent and individual implementing projects within SP00375 shall implement the system of Travertine Point Walkways/Pedestrian Paths as illustrated in Exhibits 3.1-A and 3.1-B of the TSS.

30.TRANS 010
PRIOR TO ANY SP - SP375/BIKEWAYS Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

The project proponent and individual implementing projects within SP00375 shall implement the system of Travertine Point Bikeways Plan as illustrated in Exhibits 3.2-A and 3.2-B of the TSS.

30.TRANS 011
PRIOR TO ANY SP - SP375/TRANSIT FEATURES Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

The project proponent and individual implementing projects within SP00375 shall implement the Travertine Point Transit Features as illustrated in Exhibits 4.1-A and 4.1-B of the TSS.

30.TRANS 012
PRIOR TO ANY SP - SP375/NEV ACCOMMODATIONS Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

The project proponent and individual implementing projects within SP00375 shall implement the Travertine Point Neighborhood Electrical Vehicle Accommodations as illustrated in Exhibit 6.1-I of the TIA. State legislation will be required to allow NEVs to use roadways that have a speed limit higher than 35 mph. The applicant shall assist the County in obtaining legislative approval.

30.TRANS 013
PRIOR TO ANY SP - SP375/DRAINAGE STUDIES Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

Drainage studies will be required for all subsequent development proposals within the boundaries of Specific Plan No. 375 as approved by the Transportation Department.

30.TRANS 014
PRIOR TO ANY SP - SP375/TUMF Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

Prior to the issuance of a building permit, the applicant shall pay the Transportation Uniform Mitigation Fee (TUMF) in accordance with the fee schedule in effect at the time of issuance, pursuant to Ordinance No. 673.

30.TRANS 015
PRIOR TO ANY SP - SP375/ROAD IMPROVEMENTS Status: Conditions:
PROJECT APPROVAL INEFFECT Outstanding

Roadways internal to the project shall be developed as needed for development and as determined based on the recommendations presented in Exhibits 6.2-B through 6.2-T of the TSS dated August 5, 2010.

Prior to the issuance of any building permits within SP00375, the project proponent shall construct Lincoln Street between the northern project boundary and 81st Avenue and 81st

Avenue between SR-86 and Lincoln Street as two-lane interim roadways (34 ft traveled way).

Prior to the issuance of any building permits within Planning Areas 1-1, 1-2, or 1-9 within SP00375, the project proponent shall construct 81st Avenue between the western boundary of Planning Area 1-1 and SR-86S as a Secondary (64-ft. curb-to-curb, 100-ft. right-of-way). At the discretion of the Director of Transportation, the right-of-way requirement in the off-site portion of the facility may be reduced, so long as four through travel lanes and necessary turn lanes at intersections are provided.

Prior to the issuance of any building permits within Planning Areas 1-1, 1-2, or 1-9 within SP00375, the project proponent shall realign, as necessary, the portion of SR-86/Harrison Street north of 81st Avenue to form the four-legged intersection at 81st Avenue/ SR-86/Village Way and shall get Caltrans concurrence for the relinquishment of the portion of SR-86 between 81st Avenue and SR-86S.

Prior to the issuance of any certificates of occupancy that would result in more than 7,078 dwelling units in SP00375, or sooner if the need is indicated in DRP-level or project-level traffic studies, the project proponent, or implementing projects within SP00375, shall construct 81st Avenue between SR-86S and Paseo Street as a Major. Based on subsequent traffic studies and at the discretion of the Director of Transportation, the threshold number of residential units may be adjusted.

100.PLANNING 002		Status:	Conditions:
PRIOR TO ISSUE	SP - COUNT RES BUILD PERMITS	INEFFECT	Outstanding
GIVEN BLDG PRMT			

This condition is applied to assist the Planning Department with tracking the build-out of the SPECIFIC PLAN by automatically counting all the issuance of all new residential building permits on the County's Land Management System which are electronically associated with the Specific Plan. Accordingly, this condition will not allow more than 16650 residential building permits to be issued within the SPECIFIC PLAN.

100.PLANNING 003		Status:	Conditions:
PRIOR TO ISSUE	SP -* COUNT RES PRMTS IN DRP	INEFFECT	Outstanding
GIVEN BLDG PRMT			

This Condition is applied to assist the Planning Department with tracking the build-out of each DISTRICT within the SPECIFIC PLAN.

Each DISTRICT within the SPECIFIC PLAN shall receive a different development level designation when the DISTRICT REFINEMENT PLAN application is filed. All subsequent implementing projects, including any processed concurrently with the DISTRICT REFINEMENT PLAN shall be attached to the development level designation for the corresponding DISTRICT REFINEMENT PLAN. This condition shall be applied to each DISTRICT REFINEMENT PLAN to automatically count the development of all new residential dwelling units for that DISTRICT on the County's Land Management System. Accordingly, this condition will not allow more than _____ residential dwelling units to be issued within DISTRICT _____.

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 15,160th building permit within the SPECIFIC PLAN, at least 1,416 affordable housing units shall have been constructed and operating per the requirements of SPECIFIC PLAN section 3.13.1 subsection 5.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 008		Status:	Conditions:
PRIOR TO ISSUE	SP - AFFORDABILITY REQ (5)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 16,405th building permit within the SPECIFIC PLAN, at least 1,666 affordable housing units shall have been constructed and operating per the requirements of SPECIFIC PLAN section 3.13.1 subsection 5.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 009		Status:	Conditions:
PRIOR TO ISSUE	SP - NONRES JOBS REQ (1)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,250th building permit within the SPECIFIC PLAN, at least 89,000 square feet of nonresidential development shall have been constructed and occupied per the requirements of SPECIFIC PLAN section 3.13.8 subsection 2. The intent of this condition of approval is to assure that an adequate number of jobs will be provided for the project. Shell buildings, or construction alone shall not satisfy this condition of approval. Planning Department inspection of operating uses within the 89,000 square feet may be required.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 010		Status:	Conditions:
PRIOR TO ISSUE	SP - NONRES JOBS REQ (2)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 6,500th building permit within the SPECIFIC PLAN, a cumulative total of at least 529,000 square feet of nonresidential development (an addition of 440,000 square feet over the requirement shown in condition of approval number 100.Planning.9) shall have been constructed and occupied per the requirements of SPECIFIC PLAN section 3.13.8 subsection 2. The intent of this condition of approval is to assure that an adequate number of jobs will be provided for the project. Shell buildings, or construction alone shall not satisfy this condition of approval. Planning Department inspection of operating uses within the additional 440,000 square feet may be required.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 011

PRIOR TO ISSUE SP - NONRES JOBS REQ (3)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 9,500th building permit within the SPECIFIC PLAN, a cumulative total of at least 1,629,500 square feet of nonresidential development (an addition of 1,100,000 square feet over the requirement shown in condition of approval number 100.Planning.10) shall have been constructed and occupied per the requirements of SPECIFIC PLAN section 3.13.8 subsection 2. The intent of this condition of approval is to assure that an adequate number of jobs will be provided for the project. Shell buildings, or construction alone shall not satisfy this condition of approval. Planning Department inspection of operating uses within the additional 1,100,000 square feet may be required.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 012

PRIOR TO ISSUE SP - NONRES JOBS REQ (4)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 13,500th building permit within the SPECIFIC PLAN, a cumulative total of at least 4,029,500 square feet of nonresidential development (an addition of 2,400,000 square feet over the requirement shown in condition of approval number 100.Planning.11) shall have been constructed and occupied per the requirements of SPECIFIC PLAN section 3.13.8 subsection 2. The intent of this condition of approval is to assure that an adequate number of jobs will be provided for the project. Shell buildings, or construction alone shall not satisfy this condition of approval. Planning Department inspection of operating uses within the additional 2,400,000 square feet may be required.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 013

PRIOR TO ISSUE SP - NONRES JOBS REQ (5)

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 15,000th building permit within the SPECIFIC PLAN, a cumulative total of at least 5,029,500 square feet of nonresidential development (an addition of 1,000,000 square feet over the requirement shown in condition of approval number 100.Planning.12) shall have been constructed and occupied per the requirements of SPECIFIC PLAN section 3.13.8 subsection 2. The intent of this condition of approval is to assure that an adequate number of jobs will be provided for the project. Shell buildings, or construction alone shall not satisfy this condition of approval. Planning Department inspection of operating uses within the additional 1,000,000 square feet may be required.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 014

PRIOR TO ISSUE SP - FIRE STATION REQ (1)

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,000th building permit within the SPECIFIC PLAN, or to the satisfaction of the RCFD, a fire station for the RCFD within the Riverside County portion of the proposed project shall be constructed and operating.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 015

PRIOR TO ISSUE SP - FIRE STATION REQ (2)

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 4,000th building permit within the SPECIFIC PLAN, or to the satisfaction of the RCFD, a second fire station for the RCFD within the Riverside County portion of the proposed project shall be constructed and operating.

GIVEN BLDG PRMT

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,250th building permit within the SPECIFIC PLAN a minimum of 43 acres of park land shall be constructed and opened.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 020

PRIOR TO ISSUE SP - PARK PLANS REQ (2)

Status: Conditions:
INEFFECT Outstanding

GIVEN BLDG PRMT

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,500th building permit within the SPECIFIC PLAN, detailed plans for a minimum of 48 additional acres of park (for a total of 91 acres representing 5 acres per thousand) shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 021

PRIOR TO ISSUE SP - PARK CONST (2)

Status: Conditions:
INEFFECT Outstanding

GIVEN BLDG PRMT

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 6,500th building permit within the SPECIFIC PLAN, detailed plans for a minimum of 48 additional acres of park (for a total of 91 acres representing 5 acres per thousand) shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 022

PRIOR TO ISSUE SP - PARK PLANS REQ (3)

Status: Conditions:
INEFFECT Outstanding

GIVEN BLDG PRMT

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as

enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 9,000th building permit within the SPECIFIC PLAN, detailed plans for a minimum of 47 additional acres of park (for a total of 138 acres representing 5 acres per thousand) shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 023		Status:	Conditions:
PRIOR TO ISSUE	SP - PARK CONST (3)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 10,000th building permit within the SPECIFIC PLAN a minimum of 47 acres of park land (for a total of 138 acres) shall be constructed and opened. To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 024		Status:	Conditions:
PRIOR TO ISSUE	SP - PARK PLANS REQ (4)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 12,500th building permit within the SPECIFIC PLAN, detailed plans for a minimum of 68 additional acres of park (for a total of 206 acres representing 5 acres per thousand) shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 025		Status:	Conditions:
PRIOR TO ISSUE	SP - PARK CONST (4)	INEFFECT	Outstanding
GIVEN BLDG PRMT			

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 13,500th building permit within the SPECIFIC PLAN a minimum of 68 acres of park land (for a total of 206 acres) shall be constructed and opened. To

PRIOR TO ISSUE
GIVEN BLDG PRMT

INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 7,000th building permit within the SPECIFIC PLAN for an estimated 5,000-square-foot library facility (in addition to library space previously required) shall be constructed and operating.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 030

PRIOR TO ISSUE SP - LIBRARY PLANS REQ (3)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 9,500th building permit within the SPECIFIC PLAN, detailed plans for an estimated 5,000-square-foot library facility (in addition to library space previously required) shall be approved by the Planning Department in coordination with the Riverside County Library System. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 031

PRIOR TO ISSUE SP - LIBRARY CONST (3)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 10,500th building permit within the SPECIFIC PLAN an estimated 5,000-square-foot library facility (in addition to library space previously required) shall be constructed and operating.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 032

PRIOR TO ISSUE SP - LIBRARY PLANS REQ (5)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as

enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 13,000th building permit within the SPECIFIC PLAN, detailed plans for an estimated 5,000-square-foot library facility (in addition to library space previously required) shall be approved by the Planning Department in coordination with the Riverside County Library System. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

This last library may be in Imperial County as opposed to Riverside County. The Plans shall be coordinated with the Riverside County Library System and/or the Imperial County Free Library System. The applicant shall execute a joint Memorandum of Understanding with both the Riverside County Library System and Imperial County Free Library System that provides for the location of this library site in either Riverside or Imperial County and that this library will provide services to both systems. Regardless of the location of this library, the applicant shall participate in development fees for library services as required by each County. In the event that the library is located in Imperial County, this condition of approval shall be set to NOT APPLY.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 033

PRIOR TO ISSUE SP - LIBRARY CONST (5)
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 14,000th building permit within the SPECIFIC PLAN an estimated 5,000-square-foot library facility (in addition to library space previously required) shall be constructed and operating. This structure may, alternatively, be located in Imperial County in which case this condition of approval shall be set to NOT APPLY.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 034

PRIOR TO ISSUE SP - URGENT CARE PLANS REQ
GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,500th building permit within the SPECIFIC PLAN, detailed plans for an urgent care medical facility within the Travertine Point Specific Plan area shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the DISTRICT REFINEMENT PLAN for the respective DISTRICT.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 035

PRIOR TO ISSUE SP - URGENT CARE CONST

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,500th building permit within the SPECIFIC PLAN an urgent care medical facility shall be constructed and operating.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 037

PRIOR TO ISSUE SP - HOSPITAL SITE

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,000th building permit within the SPECIFIC PLAN, a site for a hospital within the Travertine Point Specific Plan area or other nearby location acceptable to the Planning Director shall be identified and approved by the Planning Department. The development of such site shall be subject to an agreement with a health care provider to construct and operate a hospital at such time as a provider determines there is sufficient need to make the construction and operation of a hospital financially feasible. The design shall substantially conform to the design criteria as specified in the district refinement plan for the respective district.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

100.PLANNING 038

PRIOR TO ISSUE SP - HOSPITAL CONST

GIVEN BLDG PRMT

Status: Conditions:
INEFFECT **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 15,000th building permit within the SPECIFIC PLAN a structure for a hospital shall be constructed and operational.

To track total dwelling unit counts see condition "10.Planning.58 DU/BUILDING PERMIT MATRIX."

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EXHIBIT I

Zero-net-energy homes: More feasible, still rare

BY BLANCA TORRES

San Francisco Business Times

California lawmakers set an ambitious goal to have all new homes achieve zero net energy use by 2020. With less than a decade to go, homebuilders have a lot of catching up to do.

So far, only one developer, Shea Homes, offers its "no-electric-bill home" model through its SheaXero brand — which it launched last year, but only in communities aimed at retirees.

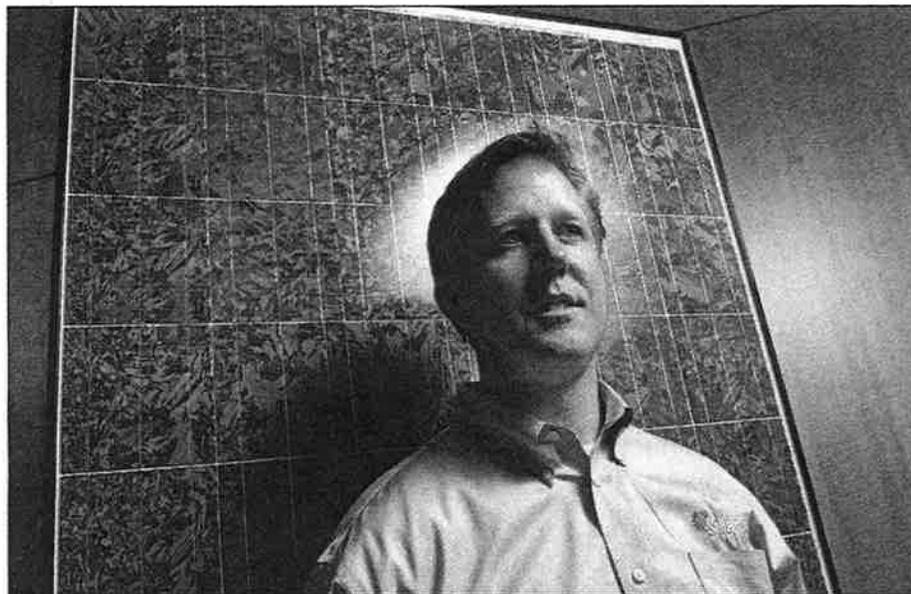
The technology to make homes generate more energy than they consume has been available for years. While many homebuilders boast of energy-efficient homes or solar panels as an option, getting down to zero net energy is still rare. That may change very quickly thanks to a drop in the cost of solar panels as well as growing consumer demand.

For Shea, the goal was to help the environment, but more importantly to reduce energy bills for its buyers who tend to live on fixed incomes and want to live in sustainable homes.

"Yes, (zero net energy) increases the costs for the homebuilder, but you're saving money over time," said Jason Enos, general manager for Shea Homes. "Sometime in the future, solar will be a standard feature like a microwave or air conditioning."

Shea started offering the Xero homes in early 2012 in California, Washington, Arizona, Nevada and Florida, and has sold close to 1,000 units. In the Bay Area, Shea builds those models at its Trilogy development in Brentwood in east Contra Costa County that is restricted to homeowners age 55 and older.

The homes were designed to cut energy usage while generating energy, mostly via solar panels.



Solar City's Walter Cuculic says buyers have a choice about where to buy electricity.

Shea spent more than a year researching how its homes could achieve zero net energy, which Enos said cost about 10 to 12 percent more to produce. Shea buyers won't notice a difference in price for a Xero home, Enos said, but will save hundreds of dollars per year on energy. In the Bay Area, buyers pay a connection fee to Pacific Gas & Electric, about \$4 per month or \$48 a year.

To develop its Xero line, Shea partnered with San Mateo-based SolarCity, a provider of clean energy services.

Walter Cuculic, national manager of SolarCity's homebuilding program, said the company has worked with numerous owners of custom homes to achieve zero net energy, but Shea was the first large-scale builder. The company is now developing similar programs for other builders such as Toll Brothers, Pulte Homes, Del

Webb Corp. and Taylor Morrison. Shea has launched its Xero brand in 10 communities and plans six more this year.

"(Zero net energy homes) are truly giving the homebuyer more choice about where you buy power," Cuculic said. "You're either going to buy it from the builder or the utility. It's about who provides the better price for the energy."

Cuculic is surprised it has taken so long for zero-net-energy homes to gain traction with homebuilders, especially with California and the U.S. Department of Energy calling for all new homes to reach zero net energy by 2030.

Solar prices have come down. "It's much more feasible than people thought," to reach those goals, Cuculic said. "If you can incorporate (zero net energy) into new construction, the cost is much lower than retrofitting existing homes."

In Vermont, a company called Vantem just rolled out its Smarthouse line of homes built in a factory and assembled onsite that are designed to achieve zero net energy. The company produced energy-efficient insulation and walls before shifting toward complete homes — a move that attracted an investment from Transformative Energy and Materials Capital LLC.

Roger Berry, a partner with the investor, said zero-net-energy homes will do for home building what the Toyota Prius did for cars — turning a luxury or cost-prohibitive technology into an industry standard.

"(We) feel that a real paradigm shift is needed ... to get all the way to zero energy," Berry said. "Halfway steps in this market don't really change consumer behavior in fundamental ways."

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SPENCER BROWN

Polaris predicted the resurgence of condo market

EXHIBIT J



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262



In Reply Refer To:
FWS-SB-12B0329-16CPA0289

Ms. Kim Stater
City Planner
City of Highland Planning Department
27215 Base Line
Highland, California 92346

APR 29 2016

Subject: Final Environmental Impact Report for the Harmony Specific Plan Project,
Highland, California

Dear Ms. Stater:

The U.S. Fish and Wildlife Service (Service) has reviewed the subject Final Environmental Impact Report (FEIR) for the proposed Harmony Specific Plan Project (Project) received on March 18, 2016. The Service provided comments on the Draft Environmental Impact Report (DEIR) to the City of Highland (City; the CEQA lead agency) in a letter dated June 4, 2014. The Service then reviewed the recirculated DEIR (RDEIR) and provided further comments to the City on October 13, 2014 and April 15, 2015. The Service does not feel their concerns regarding the analysis of impacts to biological resources have been adequately addressed in the FEIR and we recommend it not be certified as written.

We recognize that this letter is coming to you outside of the prescribed CEQA process for the FEIR and appreciate your attention to our comments. Because it appears that this project may result in take of listed species and might be the subject of a section 7 consultation under the Endangered Species Act, we wanted to reiterate our concerns related to listed species and designated critical habitat will now, because they will need to be addressed in the consultation process. If the project does not need a Clean Water Act permit and has no other federal nexus, so a section 7 consultation is not appropriate, we request that the project proponent and the City begin discussions with us as soon as possible regarding a take permit under section 10 of the Endangered species Act. We also understand that the information we provided in our April 2015 letter regarding golden eagles in the project area was outside of the CEQA public comment period. We provided that information because project and the City are still subject to the federal the Bald and Golden Eagle Protection Act. Our concerns as they relate to CEQA and the federal statutes are discussed below.

We disagree that the Project's impacts to biological resources are less than significant and we recommend the City develop and adopt alternatives to reduce its impacts on protected biological resources. According to *CEQA Guidelines Section 15065 (Mandatory Findings of Significance)*,

a project is considered to have a significant effect on the environment 1) if the project has the potential to substantially reduce the habitat of fish or wildlife species or 2) if it significantly reduces the number or restricts the range of an endangered, rare, or threatened species. The Service has identified potential direct and indirect effects to San Bernardino kangaroo rat, southwestern willow flycatcher, least Bell's vireo, golden eagle, mountain yellow-legged frog, Santa Ana sucker, and coastal California gnatcatcher. The Service requests that the FEIR be revised and recirculated to address the following issues and reduce impacts to less than significant.

San Bernardino Kangaroo Rat

The Service has serious concerns regarding direct impacts to San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) and the adverse modification of SBKR critical habitat. The project proponent fails to define the number of acres of SBKR critical habitat within the Project area; however, the Service estimates it to be approximately 400 acres. The City repeatedly states that only intermediate Riversidean Alluvial Fan Sage Scrub (RAFSS) is suitable habitat for SBKR and therefore trapping studies were confined to this habitat type. In fact, the Final Rule defining Critical Habitat for SBKR states that the species occupies a wider range of soil and vegetation types than previously thought, including areas of higher vegetation density. Research has shown that areas with mature RAFSS and associated coastal sage scrub and chaparral are in fact utilized by SBKR (Braden and McKernan, 2000). Service biologists have observed this at a site downstream within the floodplain of the Santa Ana River, at a site with dense RAFSS and a large population of SBKR off Opal Avenue, in Redlands, CA. Furthermore, the fourth primary constituent element is listed as upland areas proximal to floodplains, including marginal habitats such as agricultural lands and orchard margins. The property site contains such habitat that was not surveyed. Regarding RAFSS habitat, the federal document defining Critical Habitat for SBKR goes on to state that "although mature areas are generally used less frequently by the kangaroo rats or occupied at lower densities than those supporting earlier phases, these areas are essential for the conservation of the species." In addition, critical habitat may or may not be currently occupied by the species, as defined in Section 3(5)(A) of the Endangered Species Act, but contain physical or biological features that are essential to the conservation of the species.

Based on the above information, the applicant's assessment that there are only 7.3 acres of suitable habitat for SBKR along the southern boundary of the property is a gross underestimate. Surveys for SBKR were limited to intermediate RAFSS. It appears that the project contains 50.7 acres of mature RAFSS, 124 acres of RSS, 668 acres of disturbed RSS, 328 acres of non-native grassland, and 187 acres of former orchard. Each of these communities can support SBKR if alluvial soils are present (Braden and McKernan 2000). The Service recommends that all habitats within the alluvial floodplain south of the bluff at Newport Avenue and the area of critical habitat which extends from Greenspot Road into the proposed development area be trapped for SBKR. We cannot determine impacts with an adequate level of certainty without a more comprehensive presence/absence survey.

An additional significant concern is the proposed location of the Mill Creek Bridge in the southeastern corner of the project. The proposed bridge and road appear to bisect the only SBKR critical habitat, 7.3 acres, in the Project area which is not proposed for development. This bridge is designed to allow residents access to Highway 38 and have an additional outlet in case of emergency. However, it is placed in a very poor location from a biological standpoint. Statements made on pg. 5.4-69 of the FEIR indicate this placement was chosen as it is “the least environmentally sensitive location”, “avoid[s] loss of additional habitat”, “minimize[s] additional habitat fragmentation”, and “avoid[s] impacts to federally and state listed species known to occur within the RAFSS habitat associated with Mill Creek”. The Service is unclear as to how these determinations were made. The bridge access point is at the known location of an SBKR trapped during a pre-project survey, and will create a road and traffic through the occupied habitat where it is currently not fragmented. Road lighting and noise may disrupt SBKR biological functions. The effects of direct lighting onto the proposed access road and bridge were not analyzed as to the impacts this would have on immediately adjacent occupied SBKR habitat. The construction and long-term impacts of the bridge placement need to be addressed.

In MM BIO 2, the applicant proposes to mitigate for the loss of 24.3 acres of intermediate RAFSS at a 2:1 ratio and the loss of 36.7 acres of mature RAFSS at a 1:1 ratio by preserving and/or restoring and enhancing 85.3 acres of existing RAFSS habitat offsite. In contrast, MM BIO 5 and FEIR Appendix D.1 – Habitat Assessment state that a total of 88.8 acres will be lost through project development: 38.1 acres of intermediate RAFSS and 50.7 acres of mature RAFSS. We would like clarification as to why acreages within the FEIR and supplemental documents do not correspond. Regardless, the proposed mitigation is insufficient to compensate for the loss of nearly 400 acres of SBKR critical habitat with no additional RAFSS habitat to be created. In fact, the proposed 85.3 acres is actually a reduction from the proposed mitigation acreage within the DEIR. In order to adequately mitigate the loss of the proposed acreage, the enhancement of existing RAFSS habitat would need to more than double its biological function and value. The majority of the historic range of SBKR has been lost due to flood control projects, aggregate mining and urban development. Each acre of habitat developed will cumulatively contribute to this historic loss. Given the substantial cumulative loss of habitat which has occurred, other potential developments in SBKR habitat, and the very limited amount habitat remaining, habitat conservation needs to be the primary mitigation strategy for any impacts to SBKR. Habitat restoration, while of some potential benefit to SBKR, does not reduce the next loss of habitat and thus should be viewed as a secondary measure.

We do not agree that preservation, restoration, or enhancement of habitat on the south side of Mill Creek will provide a biologically superior alternative to the preservation of existing intermediate and mature RAFSS on-site. The purchase of credits within the Cajon Creek Conservation Bank is likewise an inappropriate mitigation strategy, as it occurs within a different watershed and population of SBKR, and therefore does not represent in-kind mitigation. It is unlikely there is enough remaining RAFSS habitat within the Santa Ana River Critical Habitat Unit to compensate for the loss of this size of acreage.

The Santa Ana River Critical Habitat Unit is arguably the most important to achieve species recovery, as it includes the largest and least fragmented meta-population of SBKR remaining. The Service would like to see more significant onsite conservation and management to maintain the hydrologic function and connectivity between Mill Creek and important upland refugia habitat. We recommend that a Project be adopted that includes avoidance and preservation of SBKR habitat adjacent to Mill Creek similar to that proposed in Project Alternatives 4 or 5.

Edge Effects

An analysis of impacts regarding edge effects on SBKR, least Bell's vireo (*Vireo bellii pusillus*; LBV), southwestern willow flycatcher (*Empidonax traillii extimus*; SFWL), and other wildlife were not addressed sufficiently in the FEIR. Edge effects may include noise, light, non-native predators such as domestic cats, increased wildfire risk, and increased unmanaged human use and access to the area.

While the Service appreciates that the project proponent will install fencing surrounding the development, they do not specify the type of fencing that will allow wildlife movement into the conserved habitat areas, including the Woolly Star Preserve Area, but prevent humans and domestic cats from entering. The Service requests further information regarding the design, the ongoing maintenance of the proposed fencing, and associated funding sources. Additionally, the Service is concerned that the proposed trails' access will allow domestic predators, such as cats, access to the wildlands surrounding the development.

The existing trails will undoubtedly be used in much greater frequency if the proposed development is built as planned, and the effects on local special-status wildlife were not addressed. For instance, aerial imagery shows an existing trail entering Morton Canyon from the ridge above, which is directly adjacent to the proposed development footprint. This canyon and the associated riparian vegetation within provide important habitat to LBV and SWFL and was identified as avoidance and minimization for the Project. However, trail use in the canyon can cause direct impacts to the species using this habitat. Likewise, the proposed Project has residential developments directly abutting areas identified as conserved SBKR critical habitat. Educational signs and materials outlining the dangers domestic cats pose to wildlife are unlikely to be effective to keeping domestic cats within the development. The FEIR does not address the potentially significant effects of increased trail use on listed and special status species. We recommend that these impacts be analyzed and addressed before the FEIR is certified. The Service again requests the fence design proposed for each section of the development's perimeter.

The project proponent references that they address potential noise effects to sensitive biological resources within MM NOI 1. However, this Final Noise Impact Study will comply with the City's ordinances regarding noise standards. The City's ordinance does not address noise impacts to biological resources. Long-term noise impacts beyond construction of 3,632 residential units and associated roads will cause impacts to surrounding natural areas that were not analyzed in the FEIR. They need to be assessed and analyzed and as needed, measures to be

reduce noise impacts to special status and listed species should be included.

In addition to noise, the applicant proposes to construct a ball park with high intensity lighting within SBKR critical habitat. The effects of this were not assessed within the FEIR and no mitigation was proposed. Although the project proponent states they will comply with all applicable lighting codes and ordinances set forth by the City of Highland, again the ordinances were not designed to afford protection to biological resources. The overall Specific Lighting Plan needs to include mechanisms to shield SBKR habitat, and other adjacent wildland from the lights of the proposed ballpark, as well as from street, bridge, and house lighting.

Golden Eagles

As previously stated in our comment letter dated April 15, 2015, golden eagles (*Aquila chrysaetos*) have been documented nesting within 2 miles of the Project. Although they are not nesting within the Action Area, golden eagles generally concentrate their foraging activity to 3800 acres or within 6 miles during nesting periods (Marzluff et al. 1997). Successful foraging forays are essential to their nesting and rearing of chicks. Service biologists confirm that the eagle pair in question appear to forage in the direction and location of the proposed Project, as they have observed their travel to and from site. Golden eagles primarily seek prey in open areas, including the foothills and floodplain, and around the edges of the remnant orchards on-site. The proposed Project would equate to the loss of more than 1000 acres of suitable foraging habitat, as well a reduction in prey availability within their territory. The area proposed for development is one of the last remaining expanses of open habitat in this pair's immediate vicinity. If the eagles are forced to travel farther distances to forage, this could result in longer time periods away from the nest, as well as excessive energy expenditure to the point which may not be sustainable. Based on this information, it is the Service's assessment that direct impacts to a golden eagle nesting pair would occur as a result of the proposed Project. Additionally, the vicinity of the Project has not been well surveyed for extant eagles and Service biologists suspect that there may be additional pairs further to the west and north of the Project site that could also utilize this open habitat.

As stated in previous comment letters, it is ultimately the responsibility of those involved with the planning, design, construction, operation, and maintenance of projects to conduct relevant wildlife and habitat evaluation and determine, which, if any, species may be affected, and to seek and obtain necessary permits to avoid liability. Further assessment of golden eagle foraging and nesting activity in the area was not provided as the Service requested and we again repeat this request. To reduce potential impacts to golden eagle foraging areas within the Project footprint, the Service strongly recommends the adoption of a project alternative such as Alternative 4 or 5 within the FEIR.

Mountain Yellow-legged Frog

The Service disagrees with the assessment that there is extensive buffering between the proposed development and potential mountain yellow-legged frog (*Rana muscosa*) habitat. Planning Area

45 is within close proximity of Morton Creek, as is a proposed road. In addition to increased noise due to the nearby residential neighborhood, which may interfere with frogs' calling and ability to find mates, we have previously stated our concerns regarding increased human access to the creek where frogs may reside. We repeat our recommendation that focused surveys be done for mountain yellow-legged frog, using established USGS protocols, and the result included in the recirculated FEIR.

Santa Ana Sucker

The FEIR still does not adequately address the Service's concerns regarding the potential effects to Santa Ana sucker (*Catostomus santaanae*) critical habitat. Major storm events have the potential to wash coarse substrate into Mill Creek, which the sucker needs for reproduction in the lower Santa Ana River. The FEIR states that the majority of coarse sediment currently empties into existing USACE sediment basins, and therefore this issue does not need to be addressed. They refer to a hydrology map within FEIR Appendix I.1. This argument does not address all of the sediment transport in the Mill Creek watershed. There are at least two significant drainages and a number of minor ones that are directly tributary to Mill Creek. The presence of the detention basins in Mill Creek means that the remaining hydromorphic processes are of increased importance in maintaining the function of Santa Ana sucker critical habitat.

The coarse sediment that was historically delivered by the upper Santa Ana River has been trapped behind Seven Oaks Dam and Plunge Creek and now contains a settling basin that has been modified for mining (Service 2010). City Creek and Mill Creek are now the remaining contributors of coarse sediment into the mainstem of the Santa Ana River below the Seven Oaks Dam. We recommend that an alternative be adopted, which avoids reducing further reductions in sediment transport into and from Mill Creek. Alternatives 4 and 5 would preserve some of the Project area's important value as a source of coarse sediment because the eastern portion of the project site would remain intact.

Coastal California Gnatcatcher

The Service previously requested further surveys for coastal California gnatcatchers (*Polioptila californica californica*; CAGN) be conducted across all suitable habitat within the project boundary. We appreciate that 800 acres of Riversidean Sage Scrub (RSS) and RAFSS were surveyed in 2013 and 2014, and that no CAGN were documented. However, please be aware that a negative finding does not conclude absence of the species. There are numerous documented sightings of CAGN within one mile of the Project boundary within recent years, and therefore it is highly likely that they occur within the Project area. Furthermore, the assessment that CAGN are limited to elevations below 1,500 feet is incorrect; the species occurs at higher elevations inland than they are usually found near the coast. In fact, the Habitat Assessment (FEIR Appendix D.1) states that CAGN have historically occurred on the project site.

The Service also maintains that it is highly unlikely that the bird observed in the 2011 survey was a black-tailed gnatcatcher (*Polioptila melamura*). The explanation given for this unusual

event (a desert species occurring outside the desert) was that the area was in a state of drought that year. In fact, the Palmer Drought Severity Index indicates that Southern California was not in drought conditions in 2011, but was experiencing mid-range to moderately moist conditions. This leaves us to remain in doubt of the identification of gnatcatchers to species-level in the 2011 survey. Mr. Cardiff's statement that it was "very possible" to have a black-tailed gnatcatcher within this habitat is not the same as a verification of positive identification. If there is potential for direct impacts to CAGN through the significant habitat loss of 800 acres, appropriate in-kind mitigation should be proposed. Alternatively, the adoption of either Alternative 4 or 5 would significantly minimize impacts to both RSS and RAFSS and thus provide habitat for any CAGN that may be in the area.

Wildlife Corridors

State *CEQA Guidelines Appendix G* asserts that impacts related to biological resources may be considered potentially significant if the Project interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. The Service continues to find significant direct impacts to wildlife corridors within the Project as currently proposed. As stated in our June 4, 2014 comment letter, the proposed development footprint occupies the majority of the remaining wildland between the San Bernardino Mountains, San Bernardino National Forest and the Crafton Hills. The purpose of wildlife corridors is to provide a range of life history functions for a diverse array of species. They are not merely a means of passing from one area to another. Wildlife corridors also increase genetic diversity through the movement of species over time, thereby maintaining healthy populations that are not genetically isolated and thus subject to local extirpation. Many of the rodent and lagomorph species documented within the proposed development also provide a prey base for the previously discussed golden eagles that nest locally.

We continue to have significant concerns regarding the loss of habitat maintaining a connection between the San Bernardino Mountains and the Crafton Hills. Although we have reviewed the Wildlife Corridor Analysis (FEIR Appendix P.3), several items remain unclear or are inadequately addressed. For instance, it states that "based on field observations and area topography, wildlife movement occurs primarily in the eastern portions of the project site where the slopes of the San Bernardino Mountains are less severe, allowing better movement opportunities for larger mammals to travel out of the San Bernardino Mountains, across the eastern portion of the project site, into the Crafton Hills." The Service would like to reiterate that wildlife corridors are not simply a means for wildlife movement but in fact provide habitat that a multitude of species utilize, including an entire food web that may culminate with larger mammalian species. It is also unclear to us how the existing Crafton Hills wildlife corridor shown in Exhibit 2 was identified and determined to be sufficient. As stated in the FIER, the severe slopes of the San Bernardino Mountains appear to inhibit movement in a northwest to southeast (and vice versa) direction; however, this is precisely the direction the diagram indicates for wildlife movement. While it appears that Morton Ridge may be an impediment to movement, the major drainage into the center of the property appears to provide good access, as does all of the landscape to east of this drainage. The Service agrees that the topography is gentler on the

eastern side of the project site, but we are still unclear as to why wildlife would only utilize the very narrowly identified corridor to connect across Mill Creek. We do not believe that it is appropriate to assume that the existing dirt roads, off-highway vehicle use, lack of cover, lack of water, and ongoing site disturbances have eliminated or severely constrained wildlife movement and usage.

Additionally, we are unsure as to how the proposed wildlife corridor to the east would improve upon the existing condition movement. The FEIR states that human interference would be reduced, although the proposed corridor appears to pass through private residential properties, while the larger area to the west has very little current human use. The FEIR states that the proposed corridor has naturally occurring RSS and that ample cover will be present for traveling animals. In contrast the FIER identifies the portion of the same habitat to be developed as providing little cover. In fact the remnant orchards on the subject property likely provide good cover and facilitate wildlife passage. The analysis also states that two existing roads that have existed for decades should not impede wildlife movement through the proposed corridor area. In contrast, the existing dirt roads on the project site are identified as impeding wildlife movement. Again, we are unclear as to why this would be the case. The proposed corridor location is not an improvement upon the existing area available to wildlife, which is more than 13,000 feet wide. We are also concerned that the proposed Mill Creek Bridge directly adjacent to the proposed wildlife corridor will further impair its utility. The resulting traffic pattern would seem to place both wildlife and drivers at risk.

Furthermore, the proposed corridor depends on land outside of the Project boundary remaining intact and not developed. MM BIO 6 states that long-term management guidelines will include not allowing housing or other impacts into the corridor, which would form impediments to movement and increase harmful edge effects. In fact, a large portion of the proposed corridor appears to occur on private property with two existing residences. Is the City in control of these properties? It does not seem appropriate to provide assurances for land not in the control of the project proponent or the City. Also as discussed below, the long-term management appears to be for only 5 years, not long enough to provide any assurances about adjacent land use..

The Service is further concerned with the proposed long-term monitoring program for the corridor. The monitoring program is to be funded for only 5 years by the project proponent and managed by an Advisory Committee consisting of a City designee, the Applicant's designee, the Project biologist, and additional members selected by the City and Applicant that have appropriate experience. However, the City shall have ultimate authority on Advisory Committee matters. As the City is not in the occupation of managing wildlife and other biological resources, the Service recommends that the corridor be managed by an experienced and independent conservation organization. Also, to serve as effective mitigation for the Project's impacts, the wildlife corridor needs to be protected and managed in perpetuity. A limited 5-year management term is therefore not acceptable.

The proposed mitigation measure MM Bio 6 currently does nothing to alleviate the Service's concerns regarding the loss of linkage between the Crafton Hills and the San Bernardino

Mountains. The Wildlife Corridor Analysis acknowledges that larger habitat patches and connectivity are significantly better for mammal species, and yet there is no evident improvement on the existing habitat and connection between the San Bernardino Mountain and the Crafton Hills. Additionally, we requested that an analysis be conducted that included a diverse representation of taxonomic groups, not simply larger mammalian species. In the analysis, prospective prey base for golden eagles should be considered. We continue to recommend a more scientifically robust methodology to determine corridor linkage, such as that used by South Coast Wildlands, which we referenced in both our June 4, 2014 and October 13, 2014 correspondence. The Service feels that the adoption of either Alternative 4 or 5 would significantly alleviate our concerns regarding the loss of habitat and wildlife movement to and from the Crafton Hills. As stated within the FEIR, either alternative would "avoid any conflict with the Crafton Hills Linkage wildlife corridor."

Fuel Modification Zones

The Service acknowledges that open space was set aside by the project proponent to achieve avoidance and preservation. However, the Conceptual Fire Protection Plan for the Project mandates that Zone 3, which lies along the perimeter of development, will receive regular vegetation thinning and maintenance up to 200 feet into areas designated for conservation. For example, the Community Plan Map in Exhibit 4 shows "Natural" Open Space abutting PA 45, 12, & 46, as well as roads and multiple community public facilities. The Service notes that the required 200 feet is an increase from what was stated within DEIR and requests that this additional fire management acreage be excluded as designated conservation land. The resulting reduction in conservation areas should be reassessed and supplemented with additional mitigation in the revised FEIR. Areas reserved for permanent conservation in the FEIR should not be subject to fuel modification. The artificial thinning and removal of vegetation alters habitat and reduces values for biological resources.

Conservation and Management of Open Space

The FEIR proposes onsite conservation areas to mitigate for Project-related impacts to biological resources. However, it still does not provide information regarding how long-term management of these areas will be accomplished or funded. It also does not identify any legal mechanism to ensure that the land remains in conservation, e.g., a conservation easement. The Service appreciates that the applicant responded to our comment regarding this previously, however, there was never language added to this effect within the regulatory document. The response was "The City of Highland will require, as a condition of approval, the Natural Open Space areas be dedicated open space in perpetuity and an appropriate legal mechanism such as a conservation easement, deed restriction, or transfer to an appropriate public agency, non-profit land conservancy, or a combination thereof will be agreed upon by the Developer and the City, including long-term management activities, prior to the issuance of the first building permit for residential construction in Phase 1." We did not find this stated within the FEIR, nor any supplemental document. We repeat our request for details about the legal instrument that will be used to ensure open space lands remain in conservation, proposed monitoring and maintenance

activities, and how such activities will be funded.

Trails

The FEIR still does not identify an entity or mechanism for management, maintenance, or funding of the proposed trail network. While we appreciate that some unauthorized trails may already be in use, the construction of a development of this size directly adjacent to them will surely increase their use exponentially. This could have both direct and indirect effects to vireo, flycatcher, and SBKR, reducing or eliminating the value of the natural open space to their conservation. We have previously noted an existing trail that travels from the ridge at the edge of the project footprint into Morton Canyon and LBV and SWFL habitat. Additionally, trails along Mill Creek have the potential to impact SBKR and the ecological function of SBKR critical habitat. There is no mention if dogs would be allowed on such trails but the Service assumes the affirmative. In addition, we expect that unmanaged off-trail activities and illegal dumping will occur due to the proximity and availability of trails adjacent to 3,632 new residences. Ultimately, the Project as proposed significantly reduces natural habitat for biological resources, while facilitating increased human use within the remaining habitat areas.

We recognize the value of trails and other recreational facilities in association with wildlands. However, if areas set aside for the benefit of listed and sensitive species are to retain the intended conservation values, human use and presence in these areas must be managed. Additionally, funding for this management in perpetuity must be provided. We repeat our request that the revised FEIR contain an analysis of effects to the listed species identified, due to recreational activities in the conservation areas. As appropriate, please provide subsequent avoidance, minimization and mitigation measures to address them. The effects of trail use on wildlife movement should also be addressed where trails are proposed in areas identified as wildlife corridors. We recommend that a project alternative which does not include trails in proximity to sensitive species, including federally listed species and sensitive habitats such as riparian areas and RAFSS, be adopted.

Potential Conflicts with Other Regional Plans

We repeat our request for an analysis of the potential impacts the proposed Project may have on the directly adjacent Woolly Star Preserve Area and the Upper Santa Ana River Wash Land Management Plan and Habitat Conservation Plan. A development of this proposed size is unlikely to have no effects on these preserved conservation areas.

Project Alternatives

The Service strongly disagrees with the assertion that the Project as currently proposed would result in less than significant impacts on one or more biological resources. We do not feel that the majority of our concerns raised in the previously circulated DEIR and RDEIR have been adequately addressed. The FEIR states that "substantial impacts would be those that substantially diminish or result in the loss of an important biological resource, or those that would conflict

with local, State, and/or Federal resource conservation plans, goals, or regulations.” The proposed mitigation measures do not alleviate the substantial adverse effects on sensitive species and their habitats that the Service has the legal responsibility to protect. Moreover, the Project will substantially interfere with the existing wildlife corridor between the San Bernardino Mountains and Crafton Hills. Consequently, we strongly recommend that the current Preferred Alternative not be adopted and that an Alternative be developed which adequately addresses impacts to listed species, golden eagle, and other special status species be developed and adopted.

Alternatives 4, Smaller Project, and Alternative 5, Eastern Mitigation Bank, are each described as designating the eastern portion of the Project as natural open space, avoiding conflict with the existing Crafton Hills Linkage wildlife corridor, minimizing impacts to jurisdictional features and disturbed RSS and RAFSS, and minimizing impacts into SBKR critical habitat. While we are still unable to find a visual depiction of these alternatives, the description in FEIR Section 8.6.4 describes a development footprint roughly half the size of the current Project. It is our opinion these alternatives as described, would better preserve the important habitat linkage between the San Bernardino Mountains/San Bernardino National Forest and the Crafton Hills. These alternatives would also better minimize impacts to important RAFSS and RSS habitat, as well as reduce potential impacts to Santa Ana Sucker and its critical habitat.

Regarding the proposed PA 44, we do not consider a large man-made park to be an adequate buffer to sufficiently conserve and protect the natural habitat occurring along the Mill Creek floodplain. As previously stated when discussing SBKR critical habitat, all stages of RAFSS succession are considered essential to the conservation and recovery of the species. We request a Project alternative that addresses the greater avoidance and minimization of nearly 400 acres of SBKR critical habitat. As the Project is currently proposed, we find there to be significant impacts to this endangered species and its critical habitat.

Cumulative Effects

The applicant asserts that the proposed Project does not substantially diminish the loss of an important resource. The Service disagrees; the project footprint permanently alters close to 400 acres of SBKR critical habitat, as well as causes indirect effects to the local population through edge effects. The project proponent repeatedly discounts mature RAFSS's importance and minimizes the loss of this resource in their analysis. They propose to mitigate for the loss of RAFSS habitat at a less than 1:1 ratio by suggesting they will improve upon existing RAFSS habitat on the alternate side of Mill Creek. The SBKR subspecies is limited to three populations, all within the Inland Empire region, and all are threatened by development projects such as this one. The cumulative effects of these impacts need to be addressed within the scope of this Project and considerations made for the subspecies' long term survival. Therefore, cumulative effects to SBKR cannot be assessed appropriately without examining threats and cumulative impacts to the Lytle Cajon and San Jacinto river populations of SBKR.

We continue to believe a development of this size needs to examine cumulative effects on

downstream Santa Ana sucker critical habitat. The reduction of coarse sediment from at least some of the drainages within the project footprint, taken together with the Seven Oaks Dam, Plunge Creek and other projects, is a potentially significant cumulative impact.

Additionally, the loss of nearly 900 acres of RSS and RAFSS is a significant area of CAGN habitat. The FEIR notes that the area was historically used by CAGN. The species continues to increase its range as the species heads towards recovery, the ultimate goal of the Endangered Species Act, and therefore may require this habitat in the near future, even if it is not currently in use by CAGN. We repeat our request for a cumulative impacts analysis discussing the loss of habitat in the context of CAGN range and distribution in the Inland Empire region.

Finally, as discussed above, we appreciate your attention to our comments outside of the normal CEQA timeframe. And while you need not include our comments in your CEQA record, we hope that you will use this information, along with our earlier comments, to help the Project comply with the relevant federal statutes. We recommend that the City not adopt the FEIR as written and are available to discuss project alternatives. If you have questions regarding this letter; or to schedule a meeting, please contact Geary Hund or Rebecca Gordon of this office at 760-322-2070, extensions 209 and 216 respectively.

Sincerely,


Kennon A. Corey
Assistant Field Supervisor

cc:

Jeff Brandt, CDFW, Ontario
Christine Hill, USFS, Lytle Creek

enclosure

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EXHIBIT K



REGIONAL TRANSPORTATION PLAN
2012-2035 RTP
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future



Southern California Association of Governments
ADOPTED APRIL 2012

Southern California Association of Governments

REGIONAL TRANSPORTATION PLAN
2012–2035 RTP
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future

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Transportation Security
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MISSION STATEMENT

Leadership | Vision | Progress

Leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians.

THE ASSOCIATION WILL ACCOMPLISH THIS MISSION BY:

- Developing long-range regional plans and strategies that provide for efficient movement of people, goods and information; enhance economic growth and international trade; and improve the environment and quality of life.
- Providing quality information services and analysis for the region.
- Using an inclusive decision-making process that resolves conflicts and encourages trust.
- Creating an educational and work environment that cultivates creativity, initiative, and opportunity.

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RESOLUTION

RESOLUTION NO. 12-538-2

A RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS APPROVING THE 2012–2035 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (2012–2035 RTP/SCS); RELATED CONFORMITY DETERMINATION; AND RELATED CONSISTENCY AMENDMENT #11-24 TO THE 2011 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, the Southern California Association of Governments (SCAG) is a Joint Powers Agency established pursuant to California Government Code §6500 et seq.; and

WHEREAS, SCAG is the designated Metropolitan Planning Organization (MPO) pursuant to 23 U.S.C. §134(d) for the counties of Los Angeles, Riverside, San Bernardino, Ventura, Orange, and Imperial, and as such, is responsible for preparing and updating the Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP) pursuant to 23 U.S.C. §134 et seq., 49 U.S.C. §5303 et seq., and 23 C.F.R. §450.312; and

WHEREAS, SCAG is the designated Regional Transportation Planning Agency (RTPA) under state law, and as such, is responsible for preparing, adopting and updating the RTP and Sustainable Communities Strategy every four years pursuant to Government Code §65080 et seq., and

for preparing and adopting the FTIP (regional transportation improvement program, under state law) every two years pursuant to Government Code §§ 14527 and 65082, and Public Utilities Code §130301 et seq.; and

WHEREAS, pursuant to Senate Bill (SB) 375 (Steinberg, 2008) as codified in Government Code §65080(b) et seq., SCAG must prepare a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its greenhouse gas (GHG) reduction targets as set forth by the California Air Resources Board (ARB) and that will be incorporated into the RTP. As provided by Government Code §65080(d), the subregional Sustainable Communities Strategy for the subregions of Orange County Council of Governments and Gateway Cities Council of Governments are incorporated in their entirety into the Final 2012–2035 RTP/SCS; and

WHEREAS, pursuant to SB 375, ARB set the per capita GHG emission reduction targets from passenger vehicles for the SCAG region at 8% below 2005 per capita emissions levels by 2020 and 13% below 2005 per capita emissions levels by 2035; and

WHEREAS, pursuant to Government Code §65080(b)(2)(B), the SCS must: (1) identify the general location of uses, residential densities, and building intensities within the region; (2) identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household

formation and employment growth; (3) identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584; (4) identify a transportation network to service the transportation needs of the region; (5) gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (1) and (b) of the Government Code Sections 65080 and 65581; and (6) consider the statutory housing goals specified in Sections 65580 and 65581, (7) set forth a forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets, and (8) allow the RTP to comply with air quality conformity requirements under the federal Clean Air Act; and

WHEREAS, SCAG is further required to comply with the California Environmental Quality Act (“CEQA”) (Cal. Pub. Res. Code § 21000 et seq.) in preparing the 2012–2035 RTP/SCS; and

WHEREAS, the 2012–2035 RTP/SCS must be consistent with all other applicable provisions of federal and state law including:

- (1) The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (23 U.S.C. §134 et seq.);
- (2) The metropolitan planning regulations at 23 C.F.R. Part 450, Subpart C;

- (3) California Government Code §65080 et seq.; Public Utilities Code §130058 and 130059; and Public Utilities Code §44243.5;
- (4) §§174 and 176(c) and (d) of the federal Clean Air Act [(42 U.S.C. §§7504 and 7506(c) and (d))] and EPA Transportation Conformity Rule, 40 C.F.R. Parts 51 and 93;
- (5) Title VI of the 1964 Civil Rights Act and the Title VI assurance executed by the State pursuant to 23 U.S.C. §324;
- (6) The Department of Transportation’s Final Environmental Justice Strategy (60 Fed. Reg. 33896; June 29, 1995) enacted pursuant to Executive Order 12898, which seeks to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment;
- (7) Title II of the 1990 Americans with Disabilities Act (42 U.S.C. §§12101 et seq.) and accompanying regulations at 49 C.F.R. §27, 37, and 38;
- (8) Senate Bill 375 (Steinberg, 2008) as codified in California Government Code §65080(b) et seq.; and

WHEREAS, in non-attainment and maintenance areas for transportation-related criteria pollutants, the MPO, as well as the Federal Highways Administration (FHWA) and Federal Transit Administration (FTA), must make a conformity determination on any updated or amended RTP in accordance with the federal Clean Air Act to ensure that federally supported highway and transit project

activities conform to the purpose of the State Implementation Plan (SIP); and

WHEREAS, transportation conformity is based upon a positive conformity finding with respect to the following tests: (1) regional emissions analysis, (2) timely implementation of Transportation Control Measures, (3) financial constraint, and (4) interagency consultation and public involvement; and

WHEREAS, on May 8, 2008, the SCAG Regional Council found the 2008 RTP to be in conformity with the State Implementation Plans for air quality, pursuant to the federal Clean Air Act and Environmental Protection Agency (EPA) Transportation Conformity Rule. Thereafter, FHWA and FTA made a conformity determination on the 2008 RTP with said determination to expire on June 5, 2012; and

WHEREAS, on September 2, 2010, in accordance with federal and state requirements, the SCAG Regional Council approved the 2010/11–2015/16 Federal Transportation Improvement Program (2011 FTIP), which was federally approved on December 14, 2010. The 2011 FTIP represents a staged, multi-year, intermodal program of transportation projects which covers six fiscal years and includes a priority list of projects to be carried out in the first four fiscal years; and

WHEREAS, SCAG staff has engaged in the continuing, cooperative, and comprehensive transportation planning process mandated by 23 U.S.C. §134(c) (3) and 23 C.F.R. §450.312, resulting in the development of the 2012–2035 RTP/SCS; and

WHEREAS, pursuant to Government Code §65080(b)(2)(F) and federal public

participation requirements, including 23 C.F.R. §450.316(b)(1)(iv), SCAG must prepare the RTP, including its SCS, by providing adequate public notice of public involvement activities and time for public review. In March 2007, SCAG approved and adopted a Public Participation Plan, to serve as a guide for SCAG's public involvement process. SCAG staff further enhanced the outreach program by incorporating the public participation requirements of SB 375 and adding strategies to better serve the underrepresented segments of the region. As a result of this process, the SCAG Regional Council adopted Amendments #2 and #3 to the Public Participation Plan on December 3, 2009 and January 5, 2012, respectively; and

WHEREAS, pursuant to Government Code §65080(b)(2)(F)(iii), during the summer 2011, SCAG held a series of Sustainable Communities Strategy public workshops throughout the region, with over 700 attendees, including residents, elected officials, representatives of public agencies, community organizations, and environmental, housing and business stakeholders; and

WHEREAS, in accordance with the interagency consultation requirements, 40 C.F.R. 93.105, SCAG consulted with the respective transportation and air quality planning agencies, including but not limited to, extensive discussion of the Draft Conformity Report before the Transportation Conformity Working Group (a forum for implementing the interagency consultation requirements) throughout the 2012–2035 RTP/SCS update process; and

WHEREAS, SCAG released the Draft 2012–2035 RTP/SCS and the associated Draft Amendment #11-24 to the 2011 FTIP

and issued a Notice of Availability, for a 55-day public review and comment period that began on December 20, 2011 and ended on February 14, 2012; and

WHEREAS, the Draft Program Environmental Impact Report for the 2012–2035 RTP/SCS (PEIR), was released on December 30, 2011 for a 45-day public review and comment period ending on February 14, 2012; and

WHEREAS, as part of a “bottom up” planning process, SCAG followed the provisions of its adopted Public Participation Plan regarding public involvement activities for the Draft 2012–2035 RTP/SCS. Public outreach efforts included publication of the Draft 2012–2035 RTP/SCS on an interactive web site, distribution of public information materials, six duly-noticed public hearings, and twelve sub-regional workshops within the SCAG region to allow stakeholders, elected officials and the public to comment on the Draft 2012–2035 RTP/SCS and the Draft PEIR; and

WHEREAS, during the public review and comment period, SCAG received over 260 individual communications (over 1,800 separate comments) in total, regarding either the Draft 2012–2035 RTP/SCS or Draft PEIR, or both; and approximately 2 comments on the Draft Amendment 11-24 to the 2011 FTIP; and

WHEREAS, SCAG staff presented an overview of the comments received on the Draft PEIR, and a proposed approach to the responses, to the Policy Committees and Regional Council at a joint meeting on February 21, 2012; and

WHEREAS, SCAG staff further presented an overview of the comments received on the Draft 2012–2035 RTP/SCS, and a proposed approach to the responses, to the RTP Subcommittee on February 28, 2012 and to the Policy Committees and Regional Council at a joint meeting on March 1, 2012. Each of the comments, letters, and e-mails received was made available on the SCAG web page on March 1, 2012; and

WHEREAS, SCAG staff responses to each comment are provided in the Final 2012–2035 RTP/SCS, Public Participation and Consultation Appendix; and

WHEREAS, in accordance with the interagency consultation requirements, 40 C.F.R. 93.105, SCAG consulted with the respective transportation and air quality planning agencies, including but not limited to, extensive discussion of the Draft 2012–2035 RTP/SCS Conformity Report before the Transportation Conformity Working Group (a forum for implementing the interagency consultation requirements) throughout the update process; and

WHEREAS, the Final 2012–2035 RTP/SCS includes a financially constrained plan and a strategic plan. The constrained plan includes transportation projects that have committed, available or reasonably available revenue sources, and thus are probable for implementation. The strategic plan is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured; and such investments are potential candidates for inclusion in the constrained RTP/SCS through future amendments or updates. The strategic plan is provided for information purposes only and is not part of the financially constrained

and conforming Final 2012–2035 RTP/SCS; and

WHEREAS, the Final 2012–2035 RTP/SCS includes a financial plan identifying the revenues committed, available or reasonably available to support the SCAG region’s surface transportation investments. The financial plan was developed following basic principles including incorporation of county and local financial planning documents in the region where available, and utilization of published data sources to evaluate historical trends and augment local forecasts as needed; and

WHEREAS, the Transportation Conformity Report contained in the Final 2012–2035 RTP/SCS makes a positive transportation conformity determination. Using the final motor vehicle emission budgets released by ARB and found to be adequate by the U.S. Environmental Protection Agency (EPA), this conformity determination is based upon staff’s analysis of the applicable transportation conformity tests; and

WHEREAS, each project or project phase included in the FTIP must be consistent with the approved RTP, pursuant to 23 C.F.R. §450.324(g). Amendment #11-24 to the 2011 FTIP has been prepared to ensure consistency with the Final 2012–2035 RTP/SCS; and

WHEREAS, conformity of Amendment #11-24 to the FTIP has been determined simultaneously with the 2012 Final RTP/SCS in order to address the consistency requirement of federal law; and

WHEREAS, prior to the adoption of this resolution, the Regional Council certified the

Final PEIR prepared for the 2012–2035 RTP/SCS to be in compliance with CEQA; and

WHEREAS, the Regional Council has had the opportunity to review the 2012 Final RTP/SCS and its related appendices as well as the staff report related to the 2012 Final RTP/SCS, and consideration of the 2012 Final RTP/SCS was made by the Regional Council as part of a public meeting held on April 4, 2012.

NOW, THEREFORE BE IT RESOLVED, by the Regional Council of the Southern California Association of Governments, as follows:

1. The Regional Council approves and adopts the Final 2012–2035 RTP/SCS for the purpose of complying with the requirements of SAFETEA-LU and all other applicable laws and regulations as referenced in the above recitals. In adopting this Final 2012–2035 RTP/SCS, the Regional Council finds as follows:
 - a. The Final 2012–2035 RTP/SCS complies with all applicable federal and state requirements, including the SAFETEA-LU planning provisions. Specifically, the Final 2012–2035 RTP/SCS fully addresses the requirements relating to the development and content of metropolitan transportation plans as set forth in 23 C.F.R. §450.322 et seq., including issues relating to: transportation demand, operational and management strategies, safety and security, environmental mitigation, the need for a financially constrained plan, consultation and public participation, and transportation conformity; and
 - b. The Final 2012–2035 RTP/SCS complies with the emission reduction targets established by the California Air Resources Board and meets the requirements of Senate Bill 375 (Steinberg, 2008) as codified in Government Code §65080(b) et seq. by achieving per capita GHG emission reductions relative to 2005 of 9% by 2020 and 16% by 2035; and
2. The Regional Council hereby makes a positive transportation conformity determination of the Final 2012–2035 RTP/SCS and Amendment #11-24 to the 2011 FTIP. In making this determination, the Regional Council finds as follows:
 - a. The Final 2012–2035 RTP/SCS and Amendment #11-24 to the 2011 FTIP passes the four tests and analyses required for conformity, namely: regional emissions analysis; timely implementation of Transportation Control Measures; financial constraint analysis; and interagency consultation and public involvement; and
 3. In approving the Final 2012–2035 RTP/SCS, the Regional Council also approves and adopts Amendment #11-24 to the 2011 FTIP, in compliance with the federal requirement of consistency with the RTP; and
 4. In approving the Final 2012–2035 RTP/SCS, the Regional Council incorporates all of the foregoing recitals into this Resolution; and
 5. SCAG’s Executive Director or his designee is authorized to transmit the Final 2012–2035 RTP/SCS and its conformity findings to the FTA and the FHWA to make the final conformity determination in accordance

with the Federal Clean Air Act and EPA Transportation Conformity Rule, 40 C.F.R. Parts 51 and 93.

APPROVED AND ADOPTED by the Regional Council of the Southern California Association of Governments at its regular meeting on the 4th day of April, 2012.



Pam O'Connor
President
Council Member, City of Santa Monica

Attested by:



Hasan Ikhtrata
Executive Director



Joann Africa
Chief Counsel

EXECUTIVE SUMMARY



Our Vision

Towards a Sustainable Future

For the past three decades, the Southern California Association of Governments (SCAG) has prepared Regional Transportation Plans (RTPs) with the primary goal of increasing mobility for the region's residents and visitors. While mobility is a vital component of the quality of life that this region deserves, it is by no means the only component. SCAG has placed a greater emphasis than ever before on sustainability and integrated planning in the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), whose vision encompasses three principles that collectively work as the key to our region's future: mobility, economy, and sustainability.

The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act. As such, the 2012–2035 RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2023–2035 time frame and clear steps to move toward this objective. This is especially critical for our goods movement system. The development of a world-class zero- or near-zero emission freight transportation system is necessary to maintain economic growth in the region, to sustain quality of life, and to meet federal air quality requirements. The 2012–2035 RTP/SCS puts forth an aggressive strategy for technology development and deployment to achieve this objective. This strategy will have many co-benefits, including energy security, cost certainty, increased public support for infrastructure, GHG reduction, and economic development.

Never before have the crucial linkages and interrelationships between the economy, the regional transportation system, and land use been as important as now. For the first time, the 2012–2035 RTP/SCS includes a significant consideration of the economic impacts and opportunities provided by the transportation infrastructure plan set forth in the 2012–2035 RTP/SCS, considering not only the economic and job creation impacts of the direct investment in transportation infrastructure, but also the efficiency gains in terms of worker and business economic productivity and goods movement. The 2012–2035 RTP/SCS outlines a transportation infrastructure investment strategy that will benefit Southern California, the state, and the nation in terms of economic development, competitive

advantage, and overall competitiveness in the global economy in terms of attracting and retaining employers in the Southern California region.

The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for our residents by providing more choices for where they will live, work, and play, and how they will move around. Its safe, secure, and efficient transportation systems will provide improved access to opportunities, such as jobs, education, and healthcare. Its emphasis on transit and active transportation will allow our residents to lead a healthier, more active lifestyle. It will create jobs, ensure our region's economic competitiveness through strategic investments in our goods movement system, and improve environmental and health outcomes for its 22 million residents by 2035. More importantly, the RTP/SCS will also preserve what makes the region special, including our stable and successful neighborhoods and our array of open spaces for future generations to enjoy.

The Setting

In order to successfully overcome the challenges that lie before us, this RTP/SCS first recognizes the impacts that recent events and long-term trends will have on how people choose to live and move around.

ECONOMIC RECESSION

[800,000] jobs have been lost in the region
due to the Great Recession

The economic turmoil faced by many of the region's residents is likely to impact their housing choices and travel behavior, including their transportation mode choice and day-to-day travel patterns. This will potentially require different types of transportation solutions.

POPULATION GROWTH

The region will add **[4 million]** people by 2035

This growth in population will only exacerbate our region's existing mobility challenges. The SCAG region is already home to 18 million people, or 49 percent of California's population. If it were its own state, the SCAG region would be the fifth most populous in the nation. Furthermore, this expected growth will occur mainly in the suburban inland counties of Riverside and San Bernardino, adding to the existing imbalance of jobs and housing in the region, and requiring people to travel, which contributes to transportation and air quality challenges. In addition, with the aging of the Baby Boomer generation (the share of the population 65 years or older will increase from 11 percent in 2010 to 18 percent in 2035), the region will have a greater need for more efficient modes of transportation for those who can no longer drive as their main form of transportation.



MULTIMODAL TRANSPORTATION SYSTEM

Over the past few decades, the region has invested heavily in a multimodal transportation system that serves as the backbone of the region's economic well-being.

THE SYSTEM AT A GLANCE

[21,690] miles of highways and arterials

[470] miles of passenger rail

[6] air carrier airports

Nine out of ten trips in the region utilize our extensive highway and arterial network, which supports a host of modes, including the automobile, transit, and active transportation. The region is also home to a growing number of passenger rail lines, none of which existed 20 years ago. Our regional aviation system is the nation's largest and most complex in terms of number of airports and aircraft, and our goods movement industry plays a critical role in sustaining the economy of our region. The importance of this system to our region cannot be overstated.

THE REGION IN MOTION

[446 million] miles driven each day

[81 million] air passengers each year

[45%] more urban rail riders between 2000 and 2006

[34%] of our jobs depend on the goods movement industry

Challenges

The challenges facing the region are daunting. When combined, our mobility, air quality, and funding challenges present an imposing threat to the quality of life for both current and future residents.

MOBILITY CHALLENGES

The region wastes over **[3 million]** hours each year sitting in traffic

The region’s roadways are the most congested in the nation, and traffic relief is critical, even more so in our current economic situation. By failing to address our congestion, we have foregone jobs—every 10 percent decrease in congestion can bring an employment increase of about 132,000 jobs.

SAFETY CHALLENGES

On the brighter side, our roadways are among the nation’s safest, with rate of fatal and injury collisions declining dramatically since the 1930s. But as we continue to successfully improve safety for our motorists, we cannot neglect the alarming fatality rates of those traveling on other modes of transportation.

[21%] of all traffic-related fatalities involve pedestrians

This fatality rate is unacceptable, and if we plan to successfully move toward a more sustainable future that includes plenty of active transportation, we must address the safety deficiencies in all modes of transportation.

AIR QUALITY CHALLENGES

In addition, while Southern California is a leader in reducing emissions, and ambient levels of air pollutants are improving, the SCAG region continues to have the worst air quality in the nation, and air pollution still causes thousands of premature deaths every year, as well as other serious adverse health effects. The South Coast Air Quality Management District (AQMD) estimates the monetary cost of air pollution in Southern California to be at least \$14.6 billion annually.

Even with ongoing aggressive control strategies, ever more stringent national ozone standards require further oxide of nitrogen (NOx) emission reductions in the SCAG region. In the South Coast Air Basin, for example, it is estimated that NOx emissions will need to be reduced by approximately two-thirds in 2023 and three-quarters in 2030. This is a daunting challenge. The level of emission reduction required is so significant that 2030 emissions forecasted from just three sources—ships, trains, and aircraft—would lead to ozone levels near the federal standard. Because most sources, including cars and factories, are already controlled by over 90 percent, attainment of ozone standards will require broad deployment of zero- and near-zero emission technologies in the 2023–2035 time frame.

Senate Bill 375

New to this RTP, California’s Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, calls for this RTP to include an SCS that reduces greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005, as set by the California Air Resources Board (ARB). SB 375 enhances the State’s goals of Assembly Bill 32, the Global Warming Solutions Act of 2006. Meeting the required targets will not be easy, but it must be done for the health and quality of life of current and future generations. Meeting these targets will point the region toward overall sustainability and will provide benefits beyond reducing carbon emissions.

FINANCIAL CHALLENGES

Of all the challenges facing us today, there is perhaps none more critical than funding. With the projected growth in population, employment, and demand for travel, the costs of our multimodal transportation needs surpass projected revenues available from our historic transportation funding source—the gas tax.

State and federal gas taxes have not changed
in nearly **[20]** years

Yet, highway construction costs
have grown by **[82%]**

As a result of years of underinvestment, a significant number of our roadways and bridges have fallen into a state of disrepair. It is imperative that this situation be addressed. The rate of deterioration will only accelerate with continued deferral, significantly increasing the cost of bringing our transportation assets back into a state of good repair. Furthermore, with recent declines in transit funding, the region's transit operators continue to face major obstacles to providing frequent and convenient transit service.

Rail operating costs have increased by
over **[40%]** in the past decade

Intercity transit operators have been forced
to cut service by up to **[20%]**

The region must consider ways to stabilize existing revenue sources and supplement them with reasonably available new sources. This region needs a long-term, sustainable funding plan that ensures the region receives its fair share of funding, supports an efficient and effective transportation system that grows the economy, provides mobility choices, and improves our quality of life.

Our Approach

To address these challenges, SCAG performed a careful analysis of our transportation system, the future growth of our region, and potential new sources of revenue, and embarked on a massive outreach undertaking to hear what the region had to say. While SCAG continued to work closely through hundreds of meetings with stakeholder agencies with which it has always collaborated, it also conducted a series of planning sessions throughout the region to find out what Southern Californians want to see in their future. The result of this multi-year effort is the 2012–2035 RTP/SCS, a shared vision for the region's sustainable future.

Transportation Investments

The RTP/SCS contains a host of improvements to our multimodal transportation system. These improvements include closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of our transportation system where there is room to grow in order to provide the region with the mobility it needs. These improvements are outlined in **TABLE 1**.



Image courtesy of the Riverside Transit Agency

TABLE 1 Transportation Investments (Nominal Dollars, Billions)

Component	Description	Cost
Transit		\$55.0 billion
Bus Rapid Transit (BRT)	New BRT routes, extensions, and/or service enhancements in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties	\$4.6 billion
Light Rail Transit (LRT)	New Light Rail routes/extensions in Los Angeles and San Bernardino Counties	\$16.9 billion
Heavy Rail Transit (HRT)	Heavy Rail extension in Los Angeles County	\$11.8 billion
Bus	New and expanded bus service in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties	\$21.7 billion
Passenger and High-Speed Rail		\$51.8 billion
Commuter Rail	Metrolink extensions in Riverside County and Metrolink systemwide improvements to provide higher speeds	\$4.1 billion
High-Speed Rail	Improvements to the Los Angeles to San Diego (LOSSAN) Rail Corridor with an ultimate goal of providing San Diego-Los Angeles express service in under two hours Phase I of the California High-Speed Train (HST) project that would provide high-speed service from Los Angeles to the Antelope Valley	\$47.7 billion
Active Transportation		\$6.7 billion
Various Active Transportation Strategies	Increase our bikeways from 4,315 miles to 10,122 miles, bring significant amount of sidewalks into compliance with the Americans with Disabilities Act (ADA), safety improvements, and various other strategies	\$6.7 billion
Transportation Demand Management (TDM)		\$4.5 billion
Various TDM Strategies	Strategies to incentivize drivers to reduce solo driving: <ul style="list-style-type: none"> ▪ Increase carpooling and vanpooling ▪ Increase the use of transit, bicycling, and walking ▪ Redistribute vehicle trips from peak periods to non-peak periods by shifting work times/days/locations ▪ Encourage greater use of telecommuting ▪ Other “first mile/last mile” strategies to allow travelers to easily connect to and from transit service at their origin and destination. These strategies include the development of mobility hubs around major transit stations, the integration of bicycling and transit through folding-bikes-on-buses programs, triple bike racks on buses, and dedicated racks on light and heavy rail vehicles 	\$4.5 billion

Component	Description	Cost
Transportation Systems Management (TSM) (includes Intelligent Transportation Systems (ITS))		\$7.6 billion
Various TSM Strategies	Enhanced incident management, advanced ramp metering, traffic signal synchronization, advanced traveler information, improved data collection, universal transit fare cards (Smart Cards), and Transit Automatic Vehicle Location (AVL) to increase traffic flow and reduce congestion	\$7.6 billion
Highways		\$64.2 billion
Mixed Flow	Interchange improvements to and closures of critical gaps in the highway network to provide access to all parts of the region	\$16.0 billion
High-Occupancy Vehicle (HOV)/ High-Occupancy Toll (HOT)	Closure of gaps in the high-occupancy vehicle (HOV) lane network and the addition of freeway-to-freeway direct HOV connectors to complete Southern California's HOV network A connected network of Express/HOT lanes	\$20.9 billion
Toll Facilities	Closure of critical gaps in the highway network to provide access to all parts of the region	\$27.3 billion
Arterials		\$22.1 billion
Various Arterial Improvements	Spot widenings, signal prioritization, driveway consolidations and relocations, grade separations at high-volume intersections, new bicycle lanes, and other design features such as lighting, landscaping, and modified roadway, parking, and sidewalk widths	\$22.1 billion
Goods Movement (includes Grade Separations)		\$48.4 billion
Various Goods Movement Strategies	Port access improvements, freight rail enhancements, grade separations, truck mobility improvements, intermodal facilities, and emission-reduction strategies	\$48.4 billion
Aviation and Airport Ground Access		Included in modal investments
Various Airport Ground Access Improvements	Rail extensions and improvements to provide easier access to airports, and new express bus service from remote terminals to airports	Included in modal investments
Operations and Maintenance		\$216.9 billion
Transit		\$139.3 billion
Highways	Operations and maintenance to preserve our multimodal system in a good state of repair	\$56.7 billion
Arterials		\$20.9 billion

Financial Plan

The 2012–2035 RTP/SCS financial plan identifies how much money is available to support the region’s transportation investments. The plan includes a core revenue forecast of existing local, state, and federal sources along with funding sources that are reasonably available over the time horizon of the RTP/SCS. These new sources include adjustments to state and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission) created by Congress, further leveraging of existing local sales tax measures, value capture strategies, potential national freight program/freight fees, as well as passenger and commercial vehicle tolls for specific facilities. Reasonably available revenues also include innovative financing strategies, such as private equity participation. In accordance with federal guidelines, the plan includes strategies for ensuring the availability of these sources.

TABLE 2 presents ten categories of new revenue sources and innovative financing techniques that are considered to be reasonably available and are included in the financially constrained plan. For each funding source, SCAG has examined the policy and legal context of implementation, prepared an estimate of the revenue potential, and identified action steps to ensure the funds are available to implement the region’s transportation vision.

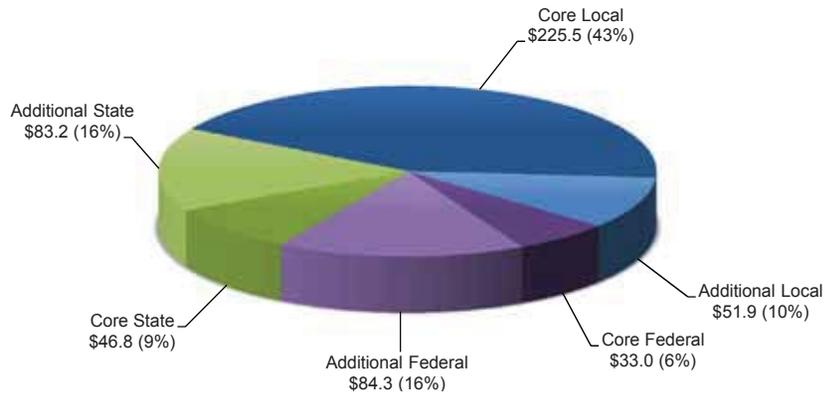
Revenue Sources and Expenditures

FIGURES 1 and **2** provide a summary of the plan’s forecasted revenues and expenditures. As shown in these figures, the region’s budget over the next 25 years totals an estimated \$524.7 billion.

TABLE 2 New Revenue Sources and Innovative Financing Strategies (Nominal Dollars, Billions)

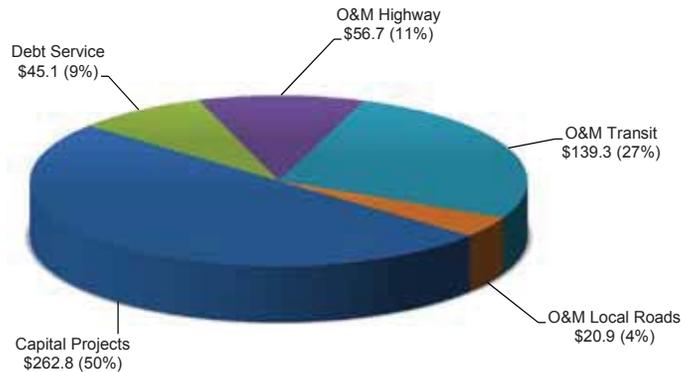
Revenue Source	Description	Amount
Bond Proceeds from Local Sales Tax Measures	Issuance of debt against existing sales tax revenues: Los Angeles, Orange, Riverside, and San Bernardino Counties.	\$25.6 bil
State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power	Additional \$0.15 per gallon gasoline tax imposed at the state and federal levels starting in 2017 to 2024—to maintain purchasing power.	\$16.9 bil
Mileage-Based User Fee (or equivalent fuel tax adjustment)	Mileage-based user fees would be implemented to replace gas taxes—estimated at about \$0.05 (in 2011 dollars) per mile starting in 2025 and indexed to maintain purchasing power.	\$110.3 bil (est. increment only)
Highway Tolls (includes toll revenue bond proceeds)	Toll revenues generated from SR-710 North Extension, I-710 South Freight Corridor, East-West Freight Corridor, segment of the High Desert Corridor, and Regional Express/HOT Lane Network.	\$22.3 bil
Private Equity Participation	Private equity share as may be applicable for key initiatives: e.g., toll facilities; also, freight rail package assumes railroads’ share of costs for main line capacity and intermodal facilities.	\$2.7 bil
Freight Fee/National Freight Program	A national freight program is anticipated with the next federal reauthorization of the surface transportation act. The U.S. Senate’s proposal would establish federal formula funding for the national freight network.	\$4.2 bil
E-Commerce Tax	Although these are existing revenue sources, they generally have not been collected. Potentially, the revenue could be used for transportation purposes, given the relationship between e-commerce and the delivery of goods to California purchasers.	\$3.1 bil
Interest Earnings	Interest earnings from toll bond proceeds.	\$0.2 bil
State Bond Proceeds, Federal Grants & Other for California High-Speed Rail Program	State general obligation bonds authorized under the Bond Act approved by California voters as Proposition 1A in 2008; federal grants authorized under American Recovery and Reinvestment Act and High-Speed Intercity Passenger Rail Program; potential use of qualified tax credit bonds; and private sources.	\$33.0 bil
Value Capture Strategies	Assumes formation of special districts including use of tax increment financing for specific initiatives.	\$1.2 bil

FIGURE 1 Revenue Summary
\$524.7 Billion (Nominal Dollars) FY2011–FY2035



Source: SCAG Revenue Model 2011
 Note: Numbers may not sum to total due to rounding

FIGURE 2 Expenditure Summary
\$524.7 Billion (Nominal Dollars) FY2011–FY2035



Source: SCAG Revenue Model 2011
 Note: Numbers may not sum to total due to rounding

Sustainable Communities Strategy

Within the RTP, the SCS demonstrates the region’s ability to attain and exceed the GHG emission-reduction targets set forth by the ARB. The SCS outlines our plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures. Finally, the RTP/SCS fully integrates the two subregional SCSs prepared by the Gateway Cities and Orange County Council of Governments.



Photo by Alan Thompson

Measuring Up

The investments in this RTP/SCS are expected to result in significant benefits to the region with respect to transportation and mobility, as well as air quality, economic activity and job creation, sustainability, and environmental justice. They will result in better placemaking, lower overall costs, improvements in public health and the environment, responsiveness to a changing housing market, and improved accessibility and mobility.

Air Quality and GHG Targets

We will reduce greenhouse gas emissions by **[9%]** by 2020, and by **[16%]** by 2035

This RTP/SCS successfully achieves and exceeds our greenhouse gas emission-reduction targets set by ARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the EPA. With each passing year, Southern Californians should expect to breathe cleaner air and live healthier lives.

This air quality benefit is made possible largely by more sustainable planning, integrating transportation and land use decisions to allow Southern Californians to live closer to where they work and play, and to high-quality transit service. As a result, more residents will be able to use transit and active transportation as a safe and attractive means of travel.

Location Efficiency

Over **[twice]** as many households will live near high-quality transit

Share of households living in the High-Quality Transit Area will more than double over the plan period, signaling a more efficient overall development pattern in the future.

Mobility

Delay on our roadway system will improve over today's condition

Our roadways will be less congested, allowing our region's residents to spend less time in traffic onboard a bus or behind the wheel, and more time with their families.

Safety

Not only will residents be more mobile, they will also be safer. This RTP/SCS's emphasis on safety will result in significantly lower accident rates, giving our residents the peace of mind to travel freely throughout the day and come home to their loved ones every night.

Economy

We will generate **[500,000]** jobs per year

Not only will the region be more mobile, it will also be more prosperous. An annual average of 174,500 new jobs will be generated by the construction and operations expenditures in the RTP/SCS, and an additional 354,000 annual jobs will be created in a broad cross-section of industries by the region's increased competitiveness and improved economic performance as a result of the improved transportation system.

Investment Effectiveness

We will get **[\$2.90]** back for every \$1 spent

The RTP/SCS makes dollar sense. While overall expenditures by 2035 are a significant investment, the region will recover \$2.90 for every \$1 this RTP/SCS commits, which will only help propel the region to more prosperous days ahead.

Public Participation

The development of the Draft 2012–2035 RTP/SCS involved implementation of one of the most comprehensive and coordinated public participation plans ever undertaken by SCAG. The public and stakeholder involvement program went above and beyond meeting the requirements of SB 375 and the SAFETEA-LU. SCAG engaged the widest range of stakeholder groups, elected officials, special interest groups, and the general public through a series of workshops and public meetings, as well as SCAG’s policy committees, task forces, and subcommittee structure. The input received through this process has truly shaped the Draft 2012–2035 RTP/SCS in a meaningful way. Furthermore, SCAG continued to involve and engage the stakeholders and the public in the process of refining and finalizing the 2012–2035 RTP/SCS through the close of the formal comment period in February 2012. SCAG developed a state-of-the-art video and the iRTP, an interactive RTP/SCS website, that enhanced our capability to engage and involve the stakeholders and the public in shaping the 2012–2035 RTP/SCS in an unprecedented way.

Strategic Plan—Looking Ahead— Beyond the Horizon

The 2012–2035 RTP/SCS proposes investing over \$524 billion over the next 25 years to improve the quality of life of the region’s residents by enhancing our transportation system. However, additional strategies and projects are needed. The Strategic Plan identifies additional long-term initiatives such as zero- and/or near zero emission transportation strategies, new operational improvements, expanded transit investments and high-speed rail system, as well as increased commitment to active transportation. Although elements of these strategies are included in the financially constrained plan, further work is needed to ensure there is regional consensus and commitment to fund the balance in subsequent RTPs.

