FINAL

HERITAGE FIELDS PROJECT 2012 GPA/ZC SECOND SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

SCH NO.

#2002101020

prepared by:

CITY OF IRVINE

Contact:
Barry Curtis
Manager of Planning Services

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1. Introduction

1.1 INTRODUCTION

This Final Second Supplemental Environmental Impact Report (FSSEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (California Administrative Code Section 15000 et seq.).

According to CEQA Guidelines, Section 15132, the FSSEIR shall consist of:

(a) The Draft Environmental Impact Report (DSSEIR) or a revision of the Draft;

(b) Comments and recommendations received on the DSSEIR either verbatim or in summary;

(c) A list of persons, organizations, and public agencies comments on the DSSEIR;

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

(e) Any other information added by the Lead Agency.

This document contains responses to comments received on the DSSEIR for the Heritage Fields 2012 – General Plan Amendment and Zone Change Project during the public review period, which began July 10, 2012, and closed August 23, 2012. This document has been prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the Lead Agency. This document and the circulated DSSEIR comprise the FSSEIR, in accordance with CEQA Guidelines, Section 15132.

1.2 FORMAT OF THE FSSEIR

This document is organized as follows:

Section 1, Introduction. This section describes CEQA requirements and content of this FSSEIR.

Section 2, Summary of Topical Responses. This section summarizes those issues that were raised by multiple commenters. The environmental issue raised is followed by a response which addresses the issues raised by the commenters.

Section 3, Response to Comments. This section provides a list of agencies and interested persons commenting on the DEIR; copies of comment letters received during the public review period, and individual responses to written comments. To facilitate review of the responses, each comment letter has been reproduced and assigned a number (A1 through A19 for letters received from agencies and organizations, and R1 through R3 for letters received from residents). Individual comments have been numbered for each letter and the letter is followed by responses with references to the corresponding comment number.

Section 4. Revisions to the Draft SSEIR. This section contains revisions to the DSSEIR text and figures as a result of the comments received by agencies and interested persons as described in Section 3, and/or errors and omissions discovered subsequent to release of the DSSEIR for public review.

Appendices. The appendices to this FSSEIR (presented in PDF format on a CD attached to the front cover) contain the following supporting documents:

- Appendix A: Proposed General Plan Amendments
- Appendix B: Proposed Zone Changes
- Appendix C: Wildlife Corridor Plan
- Appendix D: Updated Traffic Study
- Appendix E: Supplemental Traffic Information
- Appendix F: Supplemental Noise Analysis Information
- Appendix G: Updated Water Quality Technical Report
- Appendix H: Updated Sewer and Water Master Plan Study
- Appendix I: High School No. 5 Alternative Site Analysis

The responses to comments contain material and revisions that will be added to the text of the FSSEIR. City of Irvine staff has reviewed this material and determined that none of this material constitutes the type of significant new information that requires recirculation of the DSSEIR for further public comment under CEQA Guidelines Section 15088.5. None of this new material indicates that the project will result in a significant new environmental impact not previously disclosed in the DSSEIR. Additionally, none of this material indicates that there would be a substantial increase in the severity of a previously identified environmental impact that will not be mitigated, or that there would be any of the other circumstances requiring recirculation described in Section 15088.5.

1.3 CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204 (a) outlines parameters for submitting comments, and reminds persons and public agencies that the focus of review and comment of DEIRs should be "on the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible. …CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR."

CEQA Guidelines Section 15204 (c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict

the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

In accordance with CEQA, Public Resources Code Section 21092.5, copies of the written responses to public agencies will be forwarded to those agencies at least 10 days prior to certifying the environmental impact report. The responses will be forwarded with copies of this FSSEIR, as permitted by CEQA, and will conform to the legal standards established for response to comments on DEIRs.

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2. Summary of Topical Responses

2.1 TOPICAL RESPONSE 1 – PROJECT DESCRIPTION/CURRENT SETTING

Several commentators have raised concerns about the Project Description used in the Draft SSEIR. This Topical Response 1 responds to these questions and includes additional material relating to the amendments to Vesting Tentative Tract Map 17008 which have been added to the Project after the publication of the Draft SSEIR.

A number of comments contend that the Project Description is incomplete or shifting. These comments reflect a misunderstanding of what the Project is for CEQA purposes. The Draft SSEIR correctly articulates the limited scope of this Project.

The 2012 Modified Project is a modification of the 2011 Approved Project.

Essentially some commentators assert that the 2012 Modified Project is an entirely "new" project warranting a broader project description and requiring "fresh" environmental review, rather than a modified project that warrants only "measuring the difference between the 2012 modifications compared to the 2011 modifications. However, prior to preparing the DSSEIR, the City determined based on substantial evidence that the 2012 Modified Project only proposed changes to the 2011 Approved Project, and, therefore, that it was not an entirely new project. The changes proposed to the 2011 Approved Project are incremental changes to that previously approved project and a supplemental EIR is the appropriate level of review.

The 2003 OCGP EIR was a programmatic EIR that analyzed the 2003 Great Park Project (the "Original Project") at a high level and contemplated that additional project-level analysis based on that document would occur as the mix of land uses was refined to respond to the needs of the community and market conditions. The 2011 Certified SEIR contained environmental analysis of the subsequent entitlements obtained as refinements have occurred in response to changing economic circumstances in the market and changing planning for the Great Park. The current SSEIR is no different; it is simply another step in the process to identify the most appropriate mix of land uses within the parameters of the already approved mix of residential and non-residential land uses.

Accordingly the Project Description focuses on the changes or modifications which are being proposed in the 2012 Modified Project. As detailed on Figure 2-1, the 2012 Modified Project contains far more similarities than differences to the Original Project and 2011 Approved Project. The 2012 Modified Project involves substantially the same geographic boundaries; an increase in the land area of only 0.2 percent is proposed. As with the Original Project, both private development and a regional park of virtually the same size is proposed and virtually the same areas are proposed for disturbance and development. Like the Original Project, the 2012 Modified Project contains a variety of residential sizes and types, including a substantial commitment to low-income housing as well as commercial, office, and industrial areas to serve the needs of the community. Perhaps most importantly from an environmental perspective, the traffic trip budget, which has been in place since

2003, remains unchanged (excluding past and proposed trips associated with the density bonus units, which by state law are not counted for trip budget purposes as well as schools and private neighborhood parks; however these trips are analyzed with respect to traffic impacts. While the trip budget is restricted based on ADT, all impact assessment isfully analyzed and mitigated based on peak hour trips consistent with all previous analyses.) As depicted in Figure 2-2, the traffic analysis analyzed the total anticipated trips from the 2012 Modified Project, based upon assumptions consistent with the proposed zoning. The traffic analysis also considered different options for location and types of non-residential uses as shown on Figures 2-3 and 2-4. As the project is implemented and the specific location and types of uses are further refined, project submittals will be reviewed for consistency with the analysis in this SSEIR.

The SSEIR analyzed all impacts potentially created by the proposed modification to the approved project. In its major findings related to all impact areas, the SSEIR does not identify any new significant unavoidable impacts that were not identified in the 2003 OCGP EIR. In fact, because of the refinements to the Original Project and the additional mitigation measures which have been adopted since the 2003 OCGP EIR, the 2012 Modified Project actually has ***fewer*** significant unavoidable impacts than the Original Project approved in 2003. For example, because of the increase in residential units in the 2012 Modified Project, the jobs-housing balance has improved such that there is no longer a significant and unavoidable impact in that subject area.

The analyses of the 2011 Approved Project and the 2012 Modified Project have not been "piecemealed."

Some of the comment letters also assert that the Project Descriptions in the 2011 Approved Project and of the 2012 Modified Project have been "piecemealed," making it difficult to assess the combined effects of the changes to the Original Project since 2003. However, this comment is contradicted by history of the environmental analyses that ultimately constitute the 2011 Certified EIR and the nature of the SSEIR, itself. Piecemealing chops up a project to avoid disclosure of the full impacts of a project. Here, as more information has been developed over time, the EIR has been updated to reflect project refinements and additional information.

By way of background, section 15378 of the CEQA Guidelines defines a “project” to mean “the whole of an action” that may result in either a direct or reasonably foreseeable indirect physical change in the environment. In general, at least initially, each “project” must be fully analyzed in a single environmental review document. This definition ensures “that environmental considerations do not become submerged by chopping a large project into many little ones – each with a potential impact on the environment – which cumulatively may have disastrous consequences.” (*Bozung v. LocalAgency Formation Commission* (1975) 13 Cal.3d 263, 284; *Burbank-Glendale-Pasadena Airport Authority v. Hensler* (1991) 233 Cal.App.3d 577, 592.)

Therefore, an EIR must consider the impacts of future activities associated with a project if the future environmental impacts of those activities are a reasonably foreseeable consequence of the initial project, and the activities will likely change the scope or nature of the initial project or its environmental effects. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376 ["*Laurel Heights I*"], 396.) The key to the *Laurel Height I*test is causation. An EIR need only treat the later activities as part of the “project” at issue where such activities are in some sense “caused by” the initial project approval. (Id., see also, *Berkeley Keep Jets Over the Bay*

Comm. v. Board ofPort Comm'rs (2001) 91 Cal.App.4th 1344, 1362 [Court upheld EIR's analysis of airport expansion where future activities in plan were not reasonably foreseeable].)

Courts have also found that an EIR may focus on only one project that is arguably part of a larger scheme, where the project has "independent utility" justifying separately processing and approval. (*Del Mar Terrace Conservancy, Inc. v. City Council of the City of San Diego* (1992) 10 Cal.App.4th 712, 732.) In *Del Mar Terrace*, the court upheld an EIR that treated as a discrete "project" one freeway segment that was part of a long term, multi-segment regional plan to expand the freeway system. Because the one segment would serve a viable purpose even if the later segments were never built, the court found that the freeway segment had "independent utility" and, therefore, that the EIR had properly focused on that segment as the project.

The 2011 Certified EIR reflects all of the environmental analyses of the development approved within Combined Planning Area 51 up to and including the 2011 Approved Project, including the 2003 OCGP EIR, the eight Addenda to the 2003 OCGP EIR and the 2011 SEIR. Each of the later analyses builds on the foundation of the 2003 OCGP EIR and each successive analysis, comparing the impacts of the proposed changes to the impacts of the already approved development, based upon updated information. Therefore, each later analysis analyzed the "whole" of the development within Combined Planning Area 51, by analyzing the proposed changes in combination with and in the context of the impacts of the development already approved. As such, no part of that development was "piecemealed" for separate analysis; each subsequent modification was considered individually and in terms of its cumulative impacts for the whole project.

The commentators do not suggest or identify any environmental impacts which were not fully described, nor do they suggest additional impacts which have not been studied and/or mitigated. Nor have they suggested that the 2012 Modified Project is part of a larger project that should have been analyzed in the SSEIR, or that some future activities related to the 2012 Modified Project have been omitted from the SSEIR's Project Description and therefore from the SSEIR's analyses. Instead, the comments assert that the SSEIR must be viewed as a standalone document and that, as such, its analyses are too narrow. However, CEQA makes clear that the SSEIR is a document ***specifically intended*** to ***supplement*** the analyses contained in the 2011 Certified EIR, and that it must be read ***together with the 2011 Certified EIR as one whole***.

Moreover, because the SSEIR supplements – adds to – the analyses of the 2011 Certified EIR, rather than being separated from them, the public policy concerns that give rise to the ban on "piecemealing" projects are not present here. There can be no claim that environmental considerations were hidden from public view by failing to consider any components of the development that would comprise the 2012 Modified Project if approved, including the components of the 2011 Approved Project and its predecessors. The essence of "piecemealing" is that environmental review is evaded. (*Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App3d 151, 165-66.) Here, there have been multiple successive environmental reviews, as the project has been modified over time. Each review has considered the new proposal in the context of the previously approved development and its impacts. Each time, impacts were judged and mitigation was considered and, where necessary, new mitigation measures were recommended and adopted. Therefore, this analysis satisfies the public policy of full analysis

and consideration of environmental issues required by CEQA and which in particular underlies the prohibition against "piecemealing" a project .

Finally, to the extent there is a concern that incremental changes have been "piecemealed," the claims are being raised too late in the process, as changes to the plans originally envisioned in 2003 have already been approved. Addendum 8, which is the last environmental analysis approved as part of the 2011 Certified EIR, was adopted and the minor modifications to the Orange County Great Park Master Plan and refinements to the Great Park design it analyzed were approved on October 20, 2011. Consequently, it is well past the time for bringing a challenge to the any part of the 2011 Certified EIR, based on "piecemealing" or any other legal challenge. (Pub. Res. Code § 21167.) Once the entitlements for the 2011 Approved Project became final through the expiration of CEQA's statute of limitation (id.), "the environmental impact report shall be conclusively presumed to comply with the provisions of [CEQA] for purposes of its use by responsible agencies...." (Pub. Res. Code § 21167.2.)

2.2 TOPICAL RESPONSE 2 – BASELINE

Several of the comment letters suggested that a complete reevaluation of the 2012 Modified Project as against the baseline of the 2003 OCGP EIR or, alternatively, as against the current existing conditions, is proper. However, given the extensive record of previous environmental review and the fact that the proposed project involves changes to an approved, vested, development project that is physically being implemented, the lead agency has acted within its discretion and in accordance with established CEQA case law by using the 2011 Approved Project as the baseline for the SSEIR's evaluation of the effects of the 2012 Modified Project. As discussed below, however, with respect to the 2012 Modified Project's traffic impacts, the City did not limit the SSEIR's evaluation only to the baseline traffic impacts of the 2011 Approved Project, it also included an analysis as compared to current traffic conditions. This approach was expressly endorsed in the recent California Supreme Court case: Neighbors for Smart Rail, v. Exposition Metro Line Construction Authority, 2013 WL 3970107 (Cal.), 13 Cal. Daily Op. Serv. 8404

The SSEIR properly uses the 2011 Approved Project as the baseline for its analyses.

The CEQA Guidelines state that an EIR's description of existing physical conditions at the time of the notice of preparation should "normally" be used as the baseline for determining whether a potential effect is significant. (CEQA Guidelines § 15125, subd. (a).) However, there are times when a different baseline is appropriate, and CEQA expressly contemplates the use of a different baseline in specified circumstances. For example, CEQA and the CEQA Guidelines include special rules for evaluating the potential significant effects of changes to a project where the project was *previously evaluated* in a certified EIR (or negative declaration). In this instance, where there has previously been extensive environmental review, the City has determined that the changes proposed in the 2012 Modified Project are appropriate for a supplemental EIR, not a new EIR, as discussed in more detail in Section 1.2.2 of the DSSEIR.

In general, CEQA prohibits the lead agency from requiring the preparation of a supplemental or subsequent EIR unless the agency determines that one or more specific events identified in CEQA could occur. (Pub. Res. Code § 21166.) The California courts have interpreted CEQA section 21166, and parallel provisions of the CEQA Guidelines, to limit the evaluation of the potential significant effects of a modification to a previously approved project to whether the proposed modification of the project, new

information or a change in circumstances will have a new significant effect, or a substantial increase in the severity of a significant effect previously identified. One court stated the rationale for this interpretation as follows:

> [S]ection 21166 comes into play precisely because in-depth review has already occurred, the time for challenging the sufficiency of the original EIR has long since expired (§ 21167, subd. (c)), and the question is whether circumstances have *changed* enough to justify *repeating* a substantial portion of the process.

(Fund *for Environmental Defense v. County of Orange* (1988) 204 Cal.App.3d 1538, 1544; *see also, Snarled Traffic Obstructs Progress v. City and County of San Francisco* (1999) 74 Cal.App.4th 793, 795, 798 [proposed changes to a project approved nine years earlier based on a negative declaration did not require preparation of a supplemental or subsequent EIR].)

> [T]he agency must treat the impacts of the previously approved project, upon build out, as the baseline for determining whether newly revealed environmental impacts are sufficiently severe to justify preparing a second round of environmental review….As long as later project approvals do not result in harm beyond the amount previously contemplated, the fact that the environment remains in a pristine condition at the time of the new approval cannot be invoked as a basis for requiring agencies to conduct a second round of CEQA analysis.

(Remy, M. et al., Guide to CEQA (11th Ed. 2007), p. 206, emphasis added.)

Second, the decisions interpreting CEQA section 21166 indicate that the baseline that is used in a supplemental EIR is the level of impact of the project described in the prior approved EIR for the project. The agency is not required to assess the environmental effects of the entire, previously adopted plan. (*Black Property Owners Ass'n. v. City of Berkeley* (1994) 22 Cal.App.4th 974, 985; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523; *Temecula Band of Luiseño Mission Indians v. Rancho Cal. Water Dist.* (1996) 43 Cal.App.4th 425, 437.) In short, unlike the requirements for an original EIR, a supplemental EIR does not use the existing physical conditions as a baseline, it uses the prior approved project that is being modified.

The use of a prior EIR as the "baseline" for a supplemental analysis of the changes to a development proposed by the Irvine Company was approved by a court of appeal in *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523. There, the court discussed a challenge to the traffic analysis for a previously approved portion of the development (SH2PC) which was then being discussed in a supplemental EIR. "The Report further explains that, 'For [SH2PC], which has a previously certified environmental document, the analysis addresses only the substantial changes…from that previously approved….'" (*Id.* at p. 541.) The court found this analysis complied with CEQA and case law:

> "[T]he CEQA Guidelines allow a 'supplement to [an] EIR' to 'contain only the information necessary to make the previous EIR adequate for the project as revised.' (Cal. Admin. Code, tit. 14, § 15163, subd. (b).) [¶] Case law also supports this conclusion. 'When a lead agency is considering whether to prepare an SEIR, it is specifically authorized to limit its consideration of the later project to effects not considered in connection with the earlier project. [Citation.]' (*Temecula Band of Luiseño Mission Indians v. Rancho Cal. Water Dist.* (1996) 43 Cal.App.4th 425, 437; see also

> *Benton v. Board of Supervisors* (1991) 226 Cal.App.3d 1467, 1477 ["we are satisfied that the project before the board was a modification of the existing . . . project, not an entirely new project"]….)"

(*Id*. at p. 543.)

It would be inconsistent with CEQA, as interpreted in the CEQA Guidelines and by the courts, to use the approved development analyzed in the prior EIR as the baseline when considering ***whether*** to prepare a supplemental EIR, but then, as the commentators suggest, revert to an existing physical conditions baseline when actually ***preparing*** the supplemental EIR. The comment to CEQA Guidelines section 15162 concerning supplemental EIRs states:

> "A supplement to an EIR may be distinguished from a subsequent EIR by the following: a supplement augments a previously certified EIR to the extent necessary to address the conditions described in section 15162 and to examine mitigation and project alternatives accordingly. ***It is intended to revise the previous EIR through supplementation.*** A subsequent EIR, in contrast, is a complete EIR which focuses on the conditions described in section 15162."

(Emphasis added). If, instead, a supplemental EIR had to re-analyze all the impacts from the initial conception of the project in the original EIR, it is hard to see how such an analysis would "supplement" the prior analysis or, indeed, what would distinguish a supplemental from a subsequent EIR. "Because the court evaluates under Pub Res Code section 21166 the increment of impact resulting from the project revisions, an agency should evaluate ***in its supplemental environmental review*** whether the modifications to the proposal are responsible for new environmental impacts." (Kostka, S. and Zischke, M., Practice Under the California Environmental Quality Act (2nd Ed. 2012), § 19.54, p. 928 (emphasis added), discussing *Bowman v. City of Petaluma* (1986) 185 Cal.App.3d 1065, 1079.)

The commentators also ignore the fact that the previous level and nature of development analyzed in the 2011 Certified EIR are, pursuant to CEQA and the ARDA entered into by the project applicant and the City, ***vested***. The 2011 Certified EIR has already fully analyzed the entitlements that have vested to date, the SSEIR fully analyzes the changes to that vested development proposed in the 2012 Modified Project and an extensive mitigation, monitoring and reporting program (MMRP) ensures implementation of the mitigation as the 2012 Modified Project moves forward. Indeed portions of the previously approved project are now under construction, and there is nothing to suggest that the current physical condition of the land is reasonable baseline, since changes to the environment will occur as the 2011 Approved Project continues to be built out, whether or not the pending project is approved. If, as the commentators suggest, the SSEIR had to analyze the project entitlements based on the existing physical conditions or, inexplicably, on the 2003 OCGP EIR, it would simply have to repeat the same analysis of the vested entitlements and environmental analyses contained in the 2011 Certified EIR, which would provide no meaningful information to the public or the decision-makers and in fact could be potentially misleading since it would suggest that approval or disapproval of the pending project could avoid the impacts already identified and considered as part of the 2011 Certified EIR.

The SSEIR does not limit its traffic, air quality, and GHG analyses to the baseline of the 2011 Approved Project.

While it is appropriate for the DSSEIR to use a 2011 baseline, the SSEIR for the 2012 Modified Project, however, does not limit the evaluation of the potential effects of the 2012 Modified Project to changes only to the baseline measured by the 2011 Approved Project as analyzed in the 2011 Certified EIR.

Many of the comments regarding the baseline issue focus on the SSEIR's evaluation of the potential traffic effects of the 2012 Modified Project. The SSEIR includes **both** an evaluation of (1) the traffic effects of the 2012 Modified Project as measured against the traffic effects of the 2011 Approved Project, and (2) the cumulative traffic effects of the 2012 Modified Project as measured against the current traffic conditions (existing physical conditions) in the vicinity of the Proposed Project Site at the time the SSEIR traffic study was prepared, as is the City's policy. For both the above evaluations, the SSEIR evaluates whether the 2012 Modified Project will have a significant effect on traffic using the same thresholds of significance identified in the SSEIR. Thus, the SSEIR evaluates both the above scenarios against a consistent standard for determining whether the 2012 Modified Project will have a significant effect on traffic: the traffic studied in the 2011 SEIR and the current (as of the DSSEIR) or existing traffic.

The "Existing Plus Project" traffic analysis was prepared to provide additional information to decision makers and the public, as is the City's policy. (SSEIR, Section 5.12, pp. 5.12-36 *et seq*.) This traffic analysis included analyses using existing conditions as the baseline, to which the 2012 Modified Project conditions with each of the two Options were added, that is, existing conditions plus the 2012 Modified Project Option 1 and existing conditions plus the 2012 Modified Project with Main Street Option 2. These analyses resulted in the information the commentators request with respect to the traffic analyses, and conform to the analytical approach recently set forth by the California Supreme Court in Neighbors for Smart Rail, v. Exposition Metro Line Construction Authority, 2013 WL 3970107 (Cal.), 13 Cal. Daily Op. Serv. 8404

The Court there held:

"Projected future conditions may be used as the sole baseline for impacts analysis if their use in place of measured existing conditions—a departure from the norm stated in Guidelines Section 15125(a)—is justified by unusual aspects of the project or the surrounding conditions. That the future conditions analysis would be informative is insufficient, but an agency does have discretion to completely omit an analysis of impacts on existing conditions when inclusion of such an analysis would detract from an EIR's effectiveness as an informational document, either because an analysis based on existing conditions would be uninformative or because it would be misleading to decision makers and the public."

The Court further noted: "that in appropriate circumstances an existing conditions analysis may take account of environmental conditions that will exist when the project begins operations; the agency is not strictly limited to those prevailing during the period of EIR preparation. An agency may, where appropriate, adjust its existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. In so adjusting its existing conditions baseline, an agency exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions. (citation omitted).

In the DSSEIR the baseline of the 2011 Approved Project was appropriate due to the significant amount of analyses already completed, but more importantly by the fact that existing conditions include a vested,

approved development project that is physically being implemented in the current condition. This is exactly the circumstance that the court suggested would warrant adjusting the existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. Use of a different baseline would be misleading to the public and decisionmakers.

In any event as also sanctioned by the Court in Neighbors, the DSSEIR also included an analysis of impacts compared to current conditions where that analysis might be helpful to understanding the project. For example, the "Existing Plus Project" traffic analysis includes an evaluation of the 2012 Modified Project against ground (i.e. current) conditions by "layering it" onto existing traffic counts. It does not take into account any surrounding arterial improvements and other off-site improvements beyond what exists today. With that, the "Existing Plus Project" analysis identified two impacts, one freeway ramp (SR- 133 northbound loop on-ramp at Barranca Parkway) and one intersection (Culver Drive/ University Avenue) impact. The freeway ramp impact is identified as an impact in the year 2015 of the 2012 Modified Project. The intersection impact is mitigated by a previously identified NITM Program improvement. Therefore, the "Existing Plus Project" analysis does not identify any new impacts as a result of the 2012 Modified Project as compared against existing conditions that were not already identified. This information could be useful to an understanding of the project.

The “Existing Plus Project” evaluation is a theoretical construct because it hypothetically assumes that the entire 2012 Modified Project and traffic generated by that Project are assumed to exist at the time of the preparation of the traffic study for the other current conditions. Thus, it provides an artificially conservative evaluation of the potential traffic effects of the 2012 Modified Project; in effect, it assumes that the entire 2012 Modified Project and all its traffic "appeared," fully developed, the same day the DSSEIR assessed current traffic in the area. Nevertheless, it includes information that allows the public and the decision-makers to evaluate the extent to which the 2012 Modified Project will have a significant effect on traffic conditions as they existed at the time the traffic study for the SSEIR was prepared.

The SSEIR also compares the cumulative traffic effects of the 2012 Modified Project against estimated conditions in the years 2015, 2030 and post-2030 without the 2012 Modified Project. Thus, as suggested by the provisions of the CEQA Guidelines discussed above, the SSEIR evaluates the potential impacts of the 2012 Modified Project as compared to (1) existing traffic conditions, (2) traffic conditions in 2015, (3) traffic conditions in 2030 and (4) traffic conditions after 2030. The SSEIR also provides broader types of information in its analyses of the air quality and greenhouse gas (GHG) impacts of the 2012 Modified Project. The SSEIR’s analysis of air quality impacts estimates the total construction (estimated to be approximately the same as for the 2011 Approved Project) and operational criteria pollutants emissions of the 2012 Modified Project and compares those emissions against the SCAQMD thresholds to determine their significance and, in addition, compares those total emissions against the total emissions of the 2011 Approved Project. As discussed in the DSSEIR, the proposed project and the no-project alternative (i.e. the 2011 Approved Project) create unavoidable operational adverse air quality impacts. The SSEIR’s analysis of GHG emissions impacts projects the total greenhouse gas emissions of the 2012 Modified Project and compares that total to the total GHG emissions of the 2011 Approved Project and, in addition, it determines the significance of the 2012 Modified Project’s GHG emissions as measured against current conditions using the City’s threshold of 4.8 MT of CO2e per SP/year. Thus, the DSSEIR provides comprehensive information for the decisionmakers.

Summary

In short, the commentators suggestions are inconsistent with the recent court rulings concerning the determination of baseline, and overlook the factual background in which the proposed project is being undertaken. Because this is a supplemental EIR for a previously approved and vested project, only the increase in impacts as compared to the vested project should be considered. The comments confuse a basic programmatic project subject to subsequent supplemental refinement with a project so substantially changed as to require a completely new analysis. In this case:

- The original Project was approved in a programmatic EIR in 2003 that analyzed development of private uses together with a multi-purpose Great Park
- In 2005 the Development Agreement (and later the Amended and Restated Development Agreement or "ARDA") described and vested final development rights consistent with the original EIR and also contemplating development of private uses together with a multi-purpose Great Park
- Subsequent environmental analyses refined the original EIR and project and in each case the analysis and mitigation were incorporated and merged into the EIR, such that the EIR together with the Addenda and updated analyses contained a complete analysis of the full Project with the modifications
- The suggestion that at some point the entire Project needs to be reexamined under CEQA fails to acknowledge this process of incorporating each supplemental review into an ongoing and complete EIR and also violates CEQA's and the ARDA's vesting provisions
- The Project Description in the Draft SSEIR is just the latest revision to an environmental analysis that already includes and finalizes all previous revisions in one (ongoing) EIR and still contemplates development of private uses together with a multi-purpose Great Park

2.3 TOPICAL RESPONSE 3 – NORTH IRVINE TRANSPORTATION MITIGATION (NITM) ORDINANCE

A number of commentators have raised concerns about the implementation of the North Irvine Transportation Mitigation Ordinance ("NITM") as it relates to 2012 Modified Project. One commentator expresses a desire to modify NITM to mitigate impacts to the State Highway System. That same commentator states that another methodology should be used for calculating the fair share costs of improvements. That same commentator and others have also suggested that the use of NITM would create deficiencies in the ability to pay for improvements. Each of these issues is addressed in the full context of a NITM summary in this topical response.

The stated purpose of NITM is to provide "funding for the coordinated and phased installation of required traffic and transportation improvements required under CEQA documents previously certified or adopted by the City in connection with land use entitlements for City Planning Areas [1/2], 5, 6, 8, 9, 30, 40, and 51." (Irvine Municipal Code section 6-3-701.) City Planning Areas 1/2, 5, 6, 8, 9, 30, 40 and 51 are located in the City. A portion of PA 6 is unincorporated but is within the City's Sphere of Influence. The

NITM program is not intended to fund deficiencies that may be caused by developments outside of the NITM identified development properties.

In furtherance of NITM, the City prepared the North Irvine Transportation Mitigation (NITM) Nexus Study, dated April 30, 2003 ("Nexus Study") and the NITM Scopes of Work ("Scopes of Work"). The Nexus Study analyzed future traffic conditions and identified the needed circulation system improvements (the "List of NITM Improvements"). The Nexus Study also developed a methodology for allocating NITM Improvement costs to the NITM Program Future Development Areas, which allocated costs to individual properties participating in the NITM program within the NITM study area based on proportionate traffic and circulation impacts. The requirements regarding the preparation of traffic studies, reports, and analyses set forth in NITM and in the Scopes of Work supersede the requirements regarding the preparation of traffic studies, reports, and analyses set forth in other City ordinances, resolutions, or determinations.

The List of NITM Improvements was developed based on traffic forecasts from the Irvine Transportation Analysis Model ("ITAM"); traffic shares for each NITM Improvement were also calculated using the ITAM traffic model. The List of NITM Improvements and the costs of those improvements, including the fair share allocations, are updated from time to time to take into account changes in the development assumptions based on General Plan Amendments, Zone Changes, transfer of development intensities, changes to the City's traffic model, and other background assumptions. NITM specifically contemplated that the land uses in the NITM area would change and evolve over time. Irvine Municipal Code section 6-3-706 sets forth the procedures for modification of the NITM fees if an applicant proposes a General Plan Amendment, Zone Change, Interim Review and/or a change in the intensity of development and requires that the applicant prepare an accompanying NITM Traffic Study.

The methodology for updating the List of NITM Improvements is consistent with the Nexus Study methodology and with legislative requirements. Irvine Municipal Code section 6-3-706 details when and how the adjustments must occur. The NITM ordinance and the supporting Nexus studies and Scopes of Work are incorporated into the SSEIR by reference. The City has been implementing NITM pursuant to these procedures to the relevant properties since 2003.

NITM is applicable to multiple projects within Irvine, not just the 2012 Modified Project; it addresses the mitigation for a much larger geographic area and for substantially more development both in the Heritage Field development and also the Great Park and the Irvine Company properties. Thus, any modifications to NITM are well beyond the scope of the 2012 Modified Project. Indeed, the practical consequences of amending the NITM structure when it has been already largely implemented could pose substantial legal and planning challenges and involve a considerable process. Moreover, it would require a full analysis of all of the projects within the broad area, an analysis that CEQA certainly does not require for an individual project. While the City appreciates commentators' desire to work with the City on NITM, this SSEIR is not the proper forum to address any potential policy changes.

A number of the comments to the SSEIR single out the implementation of NITM as applied to the Proposed Project, suggesting that the fair share allocation required by NITM would create deficiencies. There is no specific discussion as to what those deficiencies would be or how they would result from the implementation of NITM. As discussed above, the fair share allocations set forth in NITM are based on a nexus study (and subsequent analysis) that were based on standard industry practices in accordance with state and federal constitutional law. As stated on page ES-3 of the Nexus Study:

> Traffic shares for each location that is included in the List of NITM Improvements were calculated and applied to allocate the cost of each NITM Improvement to the Future Development Areas. The traffic shares show the "nexus" or connection between each individual improvement and the [NITM] geographic areas contributing to the need for or benefiting from that improvement. These nexus procedures satisfy the AB1600 legislative requirement that development fees be based on a demonstrated relationship between new development and future traffic shares. The total cost that is allocated to each Future Development Area represents each Area's financial obligation for the implementation of the List of NITM Improvements. This approach fairly allocates the cost of constructing each NITM Improvement that is included in the List of NITM Improvements to the Future Development Areas based on each Area's proportionate traffic and circulation impact.

With respect to the calculation of the fair share allocation for each improvement, page 3-14 of the Nexus Study states:

> "A fair share of the improvement cost is allocated to the Spectrum 8/PA40, Irvine Northern Sphere Area, Orange County Great Park and PA1/PA2 Future Development Areas using traffic share data that is based on all traffic at that improvement location (including existing traffic and future traffic due to other future development in the City of Irvine and outside the City of Irvine) thereby providing funding for improvement locations where the three (Spectrum 8/PA40, Irvine Northern Sphere Area, Orange County Great Park) EIRs identified a fair share funding responsibility, and for additional improvements needed to maintain City of Irvine level of service standards at locations not requiring mitigation in the three EIRs."

None of the comments received indicate how or why this fair share allocation of costs is inappropriate. For instance, Caltrans suggested there should be different methodology and performance criteria applied to this project. The lead agency has determined that it is not appropriate to depart from the NITM Program methodology which has been applied consistently to projects within the NITM area. Moreover, Caltrans has entered into a settlement agreement with the City whereby Caltrans agreed that the determination of impacts and fair share mitigation would be determined by the City using the NITM traffic studies in accordance with the NITM procedures and Scopes of Work. (See, Settlement Agreement between the City and Caltrans dated September 17, 2003 and City memo with NITM Scopes of Work signed by Caltrans, the City, OCTA, and the TCA.) Furthermore, Caltrans on January 13, 2012 submitted an NOP comment as part of the Planning Area 33 GPA/ZC for residential development confirming an agreement to employ NITM methodology to derive the appropriate fair share mitigation to offset State Highway System impacts from the project, even though PA 33 is not subject to NITM's requirements. These studies allocated fair share contributions in the same manner as was done for the 2012 Modified Project. Caltrans did not provide an alternative methodology or justification for determining their version of "fair share." The traffic analysis was prepared in accordance with the fair share methodology required by the City of Irvine as lead agency and approved by Caltrans in the Settlement Agreement.

NITM is being applied to the Proposed Project in the same way that it is applied to all other properties participating in the NITM Program. Further, NITM is being applied in exactly the same manner as it was for the 2011 SEIR Project, and while some of the same parties commented on the 2011 SEIR, these issues were not raised at that time. Finally, the City has been implementing NITM in good faith not just in accordance with the law, but also in accordance with a settlement agreement between the City and the Department of Transportation dated November 17, 2003. The City has consistently and routinely applied NITM, yet this is the first time that the commentators are claiming that such application is in violation of

the law. The City believes that there is substantial evidence that the process used for fair share calculations in NITM is a reasonable and appropriate method to assess traffic impacts and allocation of fair share obligations, is supported by a traffic analysis, and has been used for nearly a decade for numerous projects in a way accepted by the city, project developers, stakeholders, other traffic experts, and the community. Nothing in the referenced comments provides any specific basis for the City to change that procedure for the 2012 Modified Project.

2.4 TOPICAL RESPONSE 4 – WILDLIFE CORRIDOR ISSUES

Several commentators, including the Resource Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, formerly the California Department of Fish and Game) and various Conservation Groups (Laguna Greenbelt, Inc., Endangered Habitat League, Natural Resources Defense Council, and Friends of Harbors, Beaches, and Parks), submitted comments on the relocation of the Wildlife Corridor Feature. Following submission of these comments, the applicant met with the Conservation Groups and the Resource Agencies to discuss the commentators' concerns further and to review drafts of a Wildlife Corridor Plan ("WLC Plan") that responded to these concerns.

As part of this outreach, the applicant and Conservation Groups engaged a panel of conservation ecologists and biologists with expertise in wildlife corridor issues and/or the target species ("Peer Reviewers") to review drafts of the WLC Plan and make further revisions or recommendations. This draft WLC Plan was subsequently presented to the Resource Agencies, the City of Irvine ("City") and the Orange County Great Park Corporation ("OCGPC") for their input. The draft WLC Plan was further revised based on this additional review and presented to the Peer Reviewers for further consideration.

The Peer Reviewers examined all scientific and technical aspects of the draft WLC Plan including its location and width, plantings, internal crossings and features, fire control measures, edge effects, adaptive management, and maintenance. The Peer Reviewers concluded in Appendix D to the WLC Plan, with the concurrence of the Conservation Groups that the WLC Plan as further revised to reflect comments by the City, the OGCP, the Conservation Groups and the Resource Agencies and included in the Final SSEIR as Appendix F, is reasonably designed given the setting and various constraints on planning and would be a a biologically effective corridor between Irvine Boulevard and I-5. They also concluded that the plan would likely accommodate movement of all four focal species (coyote, bobcat, coastal California gnatcatcher, and least Bell's vireo) from inland habitats southward through the entire length of the project area to the edge of I-5.

3. Response to Comments

Section 15088 of the CEQA Guidelines requires the Lead Agency (City of Irvine) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the DSSEIR and prepare written responses.

This section provides all written responses received on the DSSEIR and the City of Irvine's responses to each comment.

Comment letters and specific comments are given letters and numbers for reference purposes. Where sections of the DSSEIR are excerpted in this document, the sections are shown indented. Changes to the DSSEIR text are shown in underlined text for additions and ~~strikeout~~ for deletions.

The following is a list of agencies and persons that submitted comments on the DSSEIR during the public review period.

Number Reference	*Commenting Agency/Person*	*Date of Comment*	*Page No.*
Agencies & Organizations			
A1	City of Tustin, Community Development Department	August 9, 2012	3-3
A2	Orange County Water District (OCWD)	August 15, 2012	3-7
A3	Orange County Transportation Authority (OCTA)	August 20, 2012	3-13
A4	Village Laguna	August 20, 2012	3-17
A5	California Department of Transportation (Caltrans)	August 21, 2012	3-21
A6	City of Newport Beach, Community Development Department	August 23, 2012	3-31
A7	Irvine Unified School District (IUSD)	August 23, 2012	3-35
A8	The Irvine Company	August 23, 2012	3-45
A9	University of California, South Coast Research & Extension Center	August 23, 2012	3-91
A10	City of Lake Forest, Community Development Department	August 24, 2012	3-95
A11	Irvine Ranch Water District (IRWD)	August 24, 2012	3-105
A12	U.S. Fish and Wildlife Service (FWS)	August 30, 2012	3-113
A13	California Department of Fish and Game (CDFG)	September 5, 2012	3-129
A14	Saddleback Unified School District (SVUSD)	September 5, 2012	3-139
A15	City of Laguna Beach	September 7, 2012	3-147
A16	Friends of Continued Good Planning in Irvine	September 7, 2012	3-231
A17	Laguna Greenbelt, Inc.	September 7, 2012	3-303
A18	Orange County Public Works (OCPW)	September 7, 2012	3-339
A19	South Coast Air Quality Management District (SCAQMD)	September 7, 2012	3-343
Residents			
R1	Janet B. Neth	July 12, 2012	3-357
R2	Qinzhu Yu	July 13, 2012	3-361
R3	Bryan Bailey	July 29, 2012	3-367

3. Response to Comments

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LETTER A1 – Scott Reekstin, Senior Planner, City of Tustin Community Development Department (2 pages)

Community Development Department

TUSTIN

BUILDING OUR FUTURE
HONORING OUR PAST

August 9, 2012

Mr. Barry Curtis
Manager of Planning and
Development Services
City of Irvine
Community Development Department
PO Box 19575
Irvine, CA 92623-0575

SUBJECT: REVIEW OF DSSEIR FOR PROPOSED SECOND REVISION TO THE HERITAGE FIELDS PROJECT

Dear Mr. Curtis:

Thank you for the opportunity to provide comments on the Draft Second Supplemental Environmental Impact Report (DSSEIR) for a General Plan Amendment and Zone Change for the Heritage Fields Project at the former Marine Corps Air Station (MCAS) El Toro.

According to the Notice of Completion and Notice of Availability, the proposed project would amend the City of Irvine's General Plan and Zoning Ordinance and allow an additional 3,412 residential units, plus up to 1,194 additional Density bonus units; modify non-residential square footages to allow 3,364,000 square feet of medical and science uses, 220,000 square feet of community commercial uses, and 1,318,200 square feet of multi-use, 535,000 square feet of which could be developed as an additional 889 residential units; and amend the City of Irvine's Master Plan of Arterial Highways.

In the build out scenario, it is indicated that the project will generate an additional 9,784 vehicles per day. Based upon the project trip distribution identified in the traffic study, the impact to the City of Tustin will be between 1% to 3% of the project traffic on Irvine Boulevard between Jamboree Road and the SR-55 Freeway. In the worst case scenario this represents approximately 300 average daily trips. This minor impact can be accommodated within the planned roadway capacity on Irvine Boulevard.

A1-1

In addition to providing the previously identified North Irvine Traffic Model (NITM) mitigation improvements as committed improvements, the traffic study identifies two additional mitigation improvements: at Newport Avenue/Irvine Boulevard, and at Irvine Boulevard/Browning Avenue. The improvement at Newport Avenue/Irvine Boulevard consists of a traffic signal modification to provide a northbound right-turn overlap phase.

300 Centennial Way, Tustin, CA 92780 • P: (714) 573-3100 • F: (714) 573-3113 • www.tustinca.org

Since the improvements at Irvine Boulevard/Browning Avenue would require substantial right-of-way to implement, the traffic study recommends an Advanced Traffic Management System (ATMS) improvement to mitigate the traffic impacts at this location. The environmental document refers to ATMS improvements at various locations throughout the document, but does not provide any explanation or description of this improvement. Discussion should be added within the document that provides the level of improvement and sound justification for its use. A cost needs to be applied to this improvement along with an explanation of how the ATMS equates to traffic signal system improvements. **A1-1**

The City of Tustin has no additional comments at this time. We would appreciate receiving a copy of the Final Second Supplemental Environmental Impact Report when it becomes available.

If you have any questions, please call me at (714) 573-3016.

Sincerely,

Scott Reekstin

Scott Reekstin
Senior Planner

cc: Jeffrey C. Parker
Douglas S. Stack
Elizabeth Binsack
Dana R. Kasdan
Doug Anderson

SR:environmental etc\Irvine Heritage Fields Draft Second Supplemental EIR Comment Letter.doc

A1. Response to Comments from Scott Reekstin, Senior Planner, City of Tustin Community Development Department, dated August 9, 2012.

A1-1 The commentator asks that the SSEIR include a description of ATMS and justification for use of ATMS at the Browning Avenue/Irvine Boulevard intersection. ATMS strategies include the use of interconnected, closed circuit television, and other communications systems, upgraded traffic signal cabinetry and controllers, changeable message signs and upgraded detection system improvements. The goal is more effective management of peak hour traffic conditions at the intersection, which would fine-tune signal operations and provides individualized and continual adjustments as warranted by specific traffic conditions. ATMS at individual locations are conservatively estimated to result in a 0.05 reduction in peak hour Intersection Capacity Utilization (ICU).

ATMS improvements are utilized to mitigate traffic impacts at several intersection locations in the adopted North Irvine Transportation Mitigation (NITM) Program. For example, fully funded ATMS improvements are already designated in NITM to address 2030 conditions at two intersections in the City of Tustin: Red Hill Avenue/Irvine Boulevard, and Tustin Ranch Road/Irvine Boulevard. The cost for ATMS improvements at the Browning Avenue/Irvine Boulevard intersection will be consistent with the City cost, currently $173,165 per intersection.

At the Browning Avenue/Irvine Boulevard intersection, the 2012 Modified Project is associated with a long range future (2030) morning peak hour ICU increase of 0.03 (Option 1) or 0.02 (Option 2). This impact is addressed by the project's full funding of ATMS improvements at this location. In its discretion, the City of Tustin may make the determination whether ATMS strategies are most suited to the Browning Avenue/Irvine Boulevard intersection based upon technical priorities and unfolding traffic management needs. As noted in the DSSEIR and consistent with the implementation of improvements for all other jurisdictions, if the City of Tustin opts not to implement mitigation for the intersection, then the 2012 Modified Project would result in a significant and unavoidable impact. No changes to the SSEIR are necessary.

3. Response to Comments

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LETTER A2 – Michael R. Markus, P.E., General Manager, Orange County Water District (3 pages)

DIRECTORS
CLAUDIA C. ALVAREZ, ESQ.
PHILIP L. ANTHONY
KATHRYN L. BARR
DENIS R. BILODEAU, P.E.
SHAWN DEWANE
CATHY GREEN
STEPHEN R. SHELDON
HARRY S. SIDHU, P.E.
BRUCE WHITAKER
ROGER C. YOH, P.E.

ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S GROUNDWATER AUTHORITY

OFFICERS
President
CLAUDIA C. ALVAREZ, ESQ.

First Vice President
PHILIP L. ANTHONY

Second Vice President
SHAWN DEWANE

General Manager
MICHAEL R. MARKUS, P.E., D.WRE

August 15, 2012

Mr. Barry Curtis
Community Development Administrator
City of Irvine
Department of Community Development
One Civic Center Plaza
PO Box 19575
Irvine, CA 92623-9575

RE: Second Draft Supplemental EIR for the Heritage Fields Project 2012 General Plan Amendment and Zone Change July 10, 2012, SCH # 2002101020

Dear Mr. Curtis:

Please accept the following comments on the Second Draft SEIR for the Heritage Field Project.

Orange County Water District (OCWD, the District) was established by the State of California in 1933 to manage the Orange County Groundwater Basin. Water produced from the basin is the primary water supply for approximately 2.5 million residents in Orange County.

The area of the proposed project falls within the District's boundaries. OCWD owns wells within Planning Area 51 as shown on the attached map (Attachment One), which is also referred to as the "Sports Park District" in the SSEIR. **A2-1**

Two of the wells, MCAS-3 and IDP-2R, are key monitoring wells regularly visited by OCWD for collection of groundwater level and quality data. These wells are part of a network of monitoring wells in the Irvine area that monitor the performance of the remediation efforts at the former MCAS El Toro under the direction of state and federal agencies, including the U.S. Environmental Protection Agency and Department of Navy. Protection of these wells, preservation of vehicle ingress and egress, and preservation of a 50' x 75' maintenance area around each well is imperative. **A2-2**

PO Box 8300
Fountain Valley, CA 92728-8300
18700 Ward Street
Fountain Valley, CA 92708
(714) 378-3200
(714) 378-3373 fax
www.ocwd.com

Wells IDP-1 and IDP-3 are not in active use but are maintained by OCWD for potential future use. Protection of these wells, preservation of vehicle ingress and egress, and preservation of a 50' x 75' maintenance area around each well is imperative.

A2-2 cont.

Please also note that the Orange County Water District has updated its Groundwater Management Plan that is described on Page 5.13-11. The current plan, Groundwater Management Plan 2009 Update, can be accessed from our website (www.ocwd.com). The SSEIR also references the OCWD 2020 Water Master Plan Report. Please delete this reference as information in this document is out-of-date.

A2-3

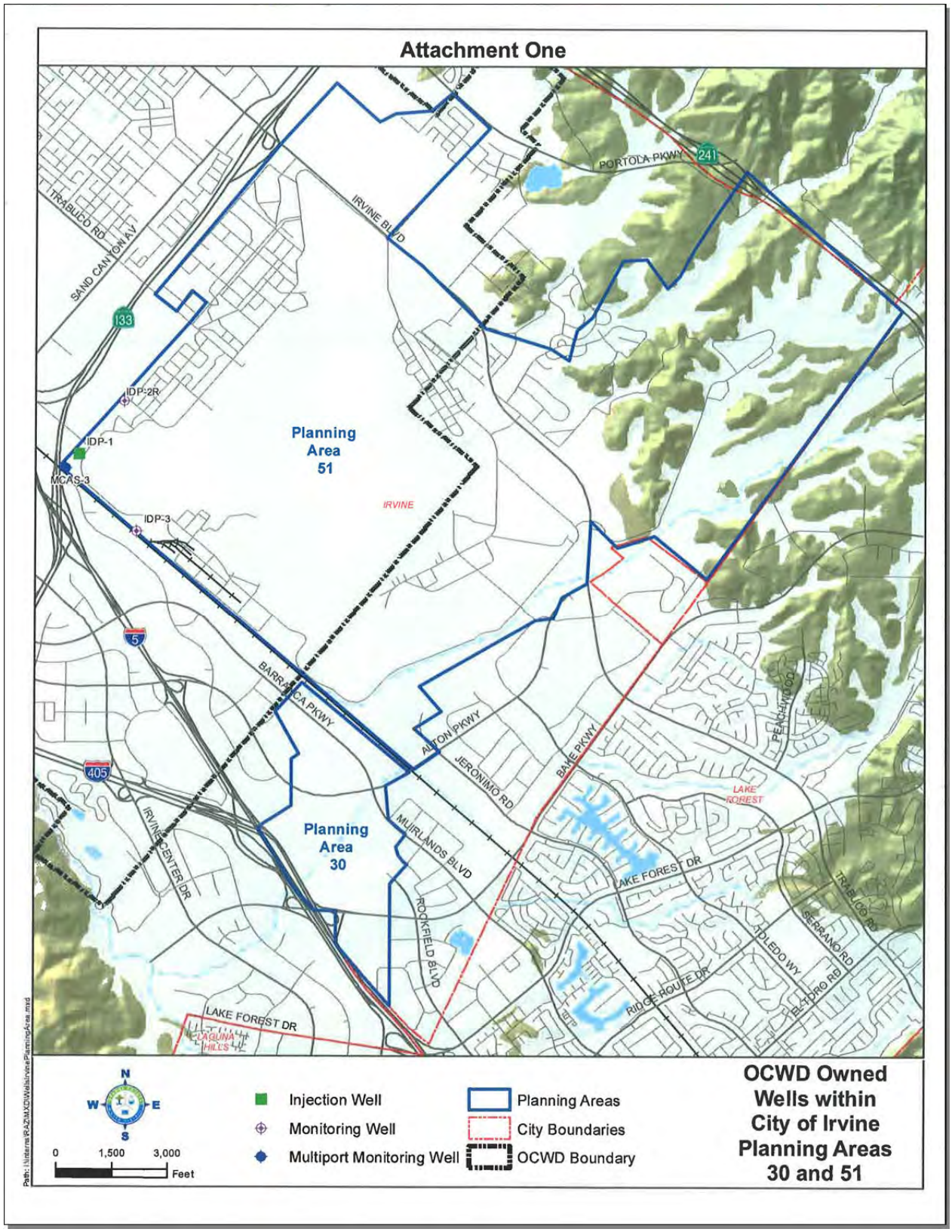
Thank you.

Sincerely,

Michael R. Markus, P.E.
General Manager

Attachment One: OCWD Owned Wells within City of Irvine Planning Areas 30 & 51

cc: Roy Herndon, OCWD
Marc Smits, Department of Navy BRAC Office, San Diego


Attachment One
Planning Area 51
Planning Area 30
IRVINE
LAKE FOREST
LAGUNA HILLS
PORTOLA PKWY
241
IRVINE BLVD
TRABUCO RD
SAND CANYON AV
133
IDP-2R
IDP-1
MCAS-3
IDP-3
5
405
BARRANCA PKWY
ALTON PKWY
JERONIMO RD
BAKE PKWY
PEACHWOOD
LAKE FOREST DR
MUIRLANDS BLVD
ROCKFIELD BLVD
IRVINE CENTER DR
RIDGE ROUTE DR
TOLEDO WY
SERRANO RD
TRABUCO RD
EL TORO RD
N
W
E
S
0
1,500
3,000
Feet
Injection Well
Monitoring Well
Multiport Monitoring Well
Planning Areas
City Boundaries
OCWD Boundary
OCWD Owned Wells within City of Irvine Planning Areas 30 and 51

3. Response to Comments

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A2. Response to Comments from Michael R. Markus, P.E., General Manager, OCWD, dated August 15, 2012.

A2-1 The commentator provides general information about the OCWD and states that the 2012 Modified Project falls within the OCWD boundaries. The comment is hereby noted and no response is necessary.

A2-2 The commentator requests that OCWD have appropriate access to maintenance areas for all wells within the 2012 Modified Project boundaries. All wells owned, operated, and maintained by OCWD within the 2012 Modified Project Site will be considered when designing and developing areas of the 2012 Modified Project that may affect any of the existing wells. As required by Mitigation Measure HH-6:

> "The City shall develop and maintain the location and status, as well as other pertinent information, of all monitoring wells on the former MCAS El Toro in a geographic information systems database ("GIS"). The City will review all permit applications on the former air station for monitoring well locations that may be affected by a permit, and require applicants to maintain appropriate access. Access to monitoring wells will be limited to authorized personnel."

Therefore, appropriate access to maintenance areas for all wells will be assured.

A2-3 The commentator requests that references to the OCWD Groundwater Management Plan be updated. Per the commentator's request, the reference on Page 5.13-11 of the DSSEIR has been revised as follows:

OCWD Groundwater Management Plan

OCWD updated ~~finalized~~ its Groundwater Management Plan ("GMP") in July 2009 ~~March 2004~~, which updated prior versions from 1989, ~~and~~ 1990, and 2004. The GMP complies with Senate Bill 1938 ("SB 1938"), passed in 2002, which includes a list of items to be included in a GMP. The GMP's objectives are 1) protecting and enhancing groundwater quality, and 2) cost-effectively protecting and increasing the basin's sustainable yield. Various programs, policies, goals, and projects are defined in the GMP to assist OCWD staff in meeting these objectives. The potential projects described in the GMP are discussed in further detail in the LTFP.

3. Response to Comments

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LETTER A3 – Charles Larwood, Manager, Transportation and Planning, OCTA (2 pages)

OCTA

AFFILIATED AGENCIES

Orange County Transit District

Local Transportation Authority

Service Authority for Freeway Emergencies

Consolidated Transportation Service Agency

Congestion Management Agency

Service Authority for Abandoned Vehicles

August 20, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine
Community Development Department
PO Box 19575
Irvine, CA 92623-0575

Subject: Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project 2012 General Plan Amendment and Zone Change

Dear Mr. Barry Curtis:

The Orange County Transportation Authority (OCTA) has reviewed the above referenced document. The following comments are provided for your consideration:

- In section 5.10, a Congestion Management Program (CMP) analysis was not provided in this section of the Environmental Impact Report (EIR). It should be noted that the EIR Traffic Study provided a section that briefly summarized the results of the CMP analysis. Please consider providing a sub-section in the EIR Transportation and Traffic section that describes any impacts to the CMP roadway network. **A3-1**

- In section 5.10, the study area intersections listed in the level of service (LOS) summary tables do not clearly indicate which locations are within the CMP roadway network. In addition, the EIR Traffic Study indicated that 19 study area intersections are a part of the CMP roadway network. It cannot be determined which intersections are from the LOS summary tables provided in the EIR section or in the Traffic Study. Please consider revising the LOS summary tables in the EIR Transportation and Traffic section to clearly identify which intersections are on the CMP network. **A3-2**

- In table 5.12-3, there are some study area intersections that are within the CMP roadway network, but the table does not indicate whether LOS E is acceptable (e.g. State Route 261 southbound ramps at Irvine Boulevard). The recommended revisions to the LOS summary tables to **A3-3**

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92863-1584 / (714) 560-OCTA (6282)

identify the CMP intersections would help determine whether or not the LOS E threshold is acceptable at these locations.

A3-3 cont.

- If the City of Irvine (City) is considering any potential changes to the Orange County Master Plan of Arterial Highways (MPAH), the City will need to coordinate with OCTA. For reference, the following web link provides an overview of procedures for amending the MPAH: http://www.octa.net/pdf/mpah_guidlines.pdf

A3-4

    - Please note that page 19 of the MPAH Guidance indicates, "arterials should be continuous between two connecting arterials". As part of a formal MPAH amendment request, consider this MPAH policy.

If you have any questions or comments, please contact Dan Phu by phone at (714) 560-5907 or by email at dphu@octa.net.

Sincerely,

Charles Larwood
Manager, Transportation Planning

CL:dp

c: Ed Alegre, OCTA

A3. Response to Comments from Charles Larwood, Manager, Transportation and Planning, OCTA, dated August 20, 2012.

A3-1 The commentator requests that the SSEIR include the analysis of the Congestion Management Program (CMP) that is contained on page 9-193 of the Traffic Impact Analysis. Pursuant to the commenter's request, the CMP analysis included as part of the Traffic Impact Analysis will also be included as sub-section 5.12.5.8 in Section 5.12, *Transportation and Traffic*. See Section 4.0 of this FSSEIR.

A3-2 Table 9.12-1 in the Traffic Impact Analysis (see Appendix I of the DSSEIR) shows which intersections are included in the CMP roadway network. At commentator's request, Section 5.12, *Transportation and Traffic*, will be revised to indicate which intersections are included in the CMP roadway network. See Section 4.0 of this FSSEIR.

A3-3 As noted above, at commentator's request, Section 5.12, *Transportation and Traffic*, has been modified to indicate which intersections are part of the CMP roadway network. This includes text indicating at which CMP intersections LOS E is considered acceptable.

A3-4 The commentator provides information regarding the process for amending the MPAH. The comment is noted and no response is necessary.

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LETTER A4– Ginger Osborne, President, Village Laguna (1 page)

VILLAGE LAGUNA

To preserve and enhance the unique village character of Laguna Beach

August 20, 2012

Barry Curtis
Manager of Planning and Development Services
City of Irvine
P.O. Box 19575
Irvine, CA

Re: Heritage Fields Project 2012 Supplementary EIR

Dear Mr. Curtis,

Village Laguna has been working for forty years to preserve the unique village character of Laguna Beach, and we consider the Heritage Fields Project 2012, which doubles the number of residences adjacent to the Great Park, a threat to our city's ability to balance visitor service with residents' quality of life. This summer, the traffic coming down Laguna Canyon to the beach has often backed up to the Nix Center and sometimes to Lake Forest Drive. The situation will be certainly be worse when Laguna Altura is fully occupied and would be many times more so if the additional 4,800-plus homes were constructed. The EIR is written as if the future residents of Heritage Fields were unlikely to want to go to the beach, but it's already apparent that they're going to be doing so in substantial numbers. We feel that environmental review of this project is incomplete without consideration of the impacts on traffic in Laguna Beach and the inclusion of mitigation measures such as shuttle service to Laguna Beach from a designated parking area in the proposed development. **A4-1**

Sincerely,

Ginger Osborne

Ginger Osborne
President

P.O. Box 1309 Laguna Beach, California 92652 www.villagelaguna.org

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A4. Response to Comments from Ginger Osborne, President, Village Laguna, dated August 20, 2012.

A4-1 The commentator asks for a traffic analysis of the impacts on Laguna Beach, including those to Laguna Canyon Road, and potential mitigation measures. As fully discussed in Laguna Beach Responses A15-28, A15-31, and A15-53 through A15-55, there is no substantial evidence that there will be significant adverse traffic impacts to Laguna Beach resulting from the 2012 Modified Project. Therefore, no additional mitigation measures are required.

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LETTER A5 – Christopher Herre, Branch Chief, Caltrans District 12 (5 pages)

08/21/2012 12:05 19497564962 PAGE 01/05

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY Edmund G. Brown Jr., Governor

DEPARTMENT OF TRANSPORTATION
District 12
3347 Michelson Drive, Suite 100
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To B. Curtis | From D. Davis
Co./Dept. Planning | Co. CALTRANS
Phone # | Phone # 9) 440-3487
Fax # 9) 724-6440 | Fax # 9) 756-4962

August 21, 2012

Barry Curtis
City of Irvine
P.O.Box 19575
Irvine, CA 92623-9575

File: IGR/CEQA
SCH#: 2002101020
Log #: 1157-U
I-405, I-5, SR 133, SR 241

Subject: Heritage Fields Project 2012 General Plan Amendment/Zone Change

Dear Mr. Curtis,

Thank you for the opportunity to review and comment on the **Draft Supplemental/Subsequent Environmental Impact Report.** The proposed project would modify the 2011 Approved Project by: (1) combining existing PA's 30 and 51 and the TCA Parcel, into a single PA that would be designated "Combined PA 51"; (2) rezoning property in districts 2.3. and 5 from 3.2 Transit Oriented Development ("TTOD"); (3) relocating the Approved Wildlife Corridor Feature to a location at the eastern edge of the Proposed Project Site; (4) rezoning 13 acres in district 6 from its current 1.1 Agriculture zoning to 1.4 Preservation to accommodate the Relocated Wildlife Feature; (5) rezoning the City parcels from 3.2 Transit Oriented Development to 8.1 Trails and Transit Oriented Development; (6) updating the City's General Plan land use designation and zoning designation for the TCA parcel to Orange County Great Park and 8.1 TTOD respectively; (7) amending the City's Master Plan of Arterial Highways, figure B-1, to eliminate the extension of Rockfield Boulevard from the eastern boundary of the Proposed Project site to Marine Way one the Orange County Transportation Authority (OCTA) approves the amendment to the countywide Master Plan of Arterial Highways; and (8) modifying the General Plan Objective B-1 to identify certain locations in Combined PA 51 where traffic level of service (LOS) E may be considered acceptable. The nearest State routes to the project are I-405, I-5, SR 133, and SR 241. **A5-1**

The California Department of Transportation (Department), District 12 is a responsible agency on this project and has the following comments:

1. This project will have significant cumulative impacts to I-5, I-405, and SR 241 freeway mainline, ramps, and intersections. Impacts of development causing operating conditions to deteriorate to deficient levels of service, or impacts adding to an existing deficient level of service condition require mitigation. **A5-2**

2. The Department has interest in working cooperatively with the City of Irvine to prepare an amendment to the North Irvine Traffic Mitigation Agreement (NITM) to mitigate the impacts to **A5-3**

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the State Highway System (SHS) resulting from this intensification of land development on a "fair share" basis. Local development project applicants would pay their "fair share" to an established fund for future transportation improvements on the SHS. **A5-3 cont.**

3. The Department, in accordance with Section 130 of the California Streets and Highways Code, may enter into a contract with the lead agency to provide the mitigation measures listed in the Environmental Document. This may include construction of the mitigation measures, the advancement of funds (proportional to the fair-share cost) to pay for mitigation measures, or the acquisition of rights-of-way needed for future improvements to the state highway system. **A5-4**

4. CEQA statutes 15125 (a) and (e) imply that where a proposed project would require an agency decision changing existing planning or zoning designations, the significance of the potential impacts of the project should generally **not** be based on a comparison of those impacts with conditions that would ultimately occur, with buildout (year 2030), under existing designations. Rather, the analysis should generally compare the impacts of the project against "existing physical conditions." Therefore, by comparing the Heritage Fields project impacts to buildout conditions and not existing conditions, the traffic study is in violation of the aforementioned CEQA statute. **A5-5**

5. The Department understands that it is the lead agency's right and responsibility to choose an appropriate significance threshold when analyzing a project's environmental impacts. However, the significance threshold of 1% increase in V/C established by the city is not the type of significance threshold the Department would use for cumulative impacts. Per CEQA Case Law *(King County Farm Bureau et al. v. City of Handford, 1990)*, a fixed ratio or percentage may not be an appropriate significance threshold for cumulative impact analysis. A minor increase (less than 1%) in traffic could affect the operation of SR-55. Should there be any significant cumulative impacts on State Facilities, appropriate mitigation measures are to be identified and submitted for our review and comment. If the City has any questions about selecting appropriate significance threshold, we would be happy to provide assistance. **A5-6**

6. We recommend the following significance thresholds be used when analyzing State Transportation Facilities:

   For Freeway Mainline Segments, a significant impact occurs when:
   a) The project degrades the Level of Service (LOS) from LOS D/E cusp or better without the project to a LOS that is worse than D/E cusp with the project, or
   b) The project contributes at least 50 peak hour trips to a freeway segment (one-way, all lanes) that, without the project, is or will be operating at an unacceptable LOS (worse than D/E cusp). The 50-trip threshold is specified in the Department's LD-IGR Technical Bulletin dated June 2008. **A5-7**

   For Off-ramps, a significant impact occurs when:
   a) The project degrades the Level of Service (LOS) from LOS D/E cusp or better without the project to a LOS that is worse than D/E cusp with the project, or

b) The project contributes at least 10 peak hour trips per lane at the gore point to an off- ramp that, without the project, is or will be operating at an unacceptable LOS (worse than D/E cusp). The 10 trips per lane is derived proportionally from the 50-trip mainline threshold with the following assumptions:

- Freeway Mainline Segments: 2,000 vehicles per hour per lane (vphpl) for mixed-flow (general purpose) lanes
- Off-ramps: 1,500 vehicle per hour (vph) for a one-lane ramp

$$\text{Off-ramp Threshold Capacity} = \frac{\text{Mainline Threshold}}{\text{Mainline Capacity} * \text{Number of Lanes}} * \text{Off-ramp}$$

$$= \frac{50}{2{,}000 * 4} * 1{,}500$$

$$= 9.375$$

$$\approx 10 \text{ (rounded up to nearest integer because trip numbers are integers)}$$

A5-7 cont.

For On-ramps, a significant impact occurs when:

a) The demand on a ramp exceeds the storage capacity, and the queue extends back on to City streets. The storage analysis should follow the Department's Ramp Metering Guidelines with the capacity assumption of a maximum of 900 vphpl for 1 lane and 1,200 vphpl for 2 lanes.

For Ramp Intersections, a significant impact occurs when:

a) The project degrades the Level of Service (LOS) from LOS D/E cusp or better without the project to a LOS that is worse than D/E cusp with the project, or
b) The project contributes at least 10 seconds per vehicle in delay to an intersection that, without the project, is or will be operating at an unacceptable LOS (worse than D/E cusp).

7. After carefully reviewing the Fair Share Calculation formula, the formula underestimates the project's "fair share". To assure consistency, the Department requests the formula outlined in the published "Guide for the Preparation of Traffic Impact Study" be used to calculate Fair Share. The Guide for the Preparation of Traffic Impact Study is available at: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

A5-8

The formula is included below for your reference:

The Department's Preferred Methodology

$$P = \frac{T}{(T_B - T_E)}$$

Where:
P = The equitable share for the proposed project's traffic impact.
T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph.
T_B = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 20 year model or the furthest future model date feasible), vph.
T_E = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

A5-8 cont.

8. The Department requests a queuing analysis for Bake Parkway and Lake Forest ramps to determine that they would have adequate storage capacity to handle additional traffic generated by this project. **A5-9**

9. Please explain why at several locations within the traffic study the LOS and V/C ratio for 2030 shows significant improvement from the 2015 data. Since the extension of SR 241 is not approved, it should not be assumed that this project will contribute to the shift in traffic patterns within the study area. **A5-10**

10. Table 10-2 lists project impacts and mitigations; however, no mitigation is offered for I-5 mainline north of Culver, even though they are being impacted by the project. **A5-11**

11. According to Table 7-13 and 7-14 of the Traffic Study, the year 2030 Without Project and with the 2012 Modified Project Option 2 AM and PM peak hour ramp volumes and freeway ratios only show a few locations impacted by the project, with only three locations exceeding the adopted thresholds. The Department questions this conclusions since the project will add 2000 vehicles during the peak hour to an area that already has a failing LOS at most locations. **A5-12**

12. In section 10.1.2 it states that if pending projects are approved, mitigation is no longer needed for I-5 and I-405 NB north of Jeffery and Culver. The project proponents should be conditioned to provide fair share for these locations. What if those pending projects are not approved? It cannot be assumed that pending projects are improved. The analysis should not be premised on the assumption that the proposed but un programmed improvements are built. **A5-13**

13. In section 10.2.2 states, "For 2015 pending conditions, there is one ramp impact for Option 2. If pending projects are approved, the project mitigation for the SR-133 Northbound Loop on-ramp from Barranca Parkway is fair share participation (on a NITM methodology fair share basis) in converting the HOV preferential lane at the on-ramp to a second metered mixed-flow lane". Does the ramp have capacity to handle this proposal? Furthermore, please explain how providing additional ramp capacity mitigates mainline impacts. **A5-14**

14. If any project work (e.g. storage of materials, street widening, emergency access improvements, sewer connections, sound walls, storm drain construction, street connections, etc.) will occur in **A5-15**

the vicinity of the Department's Right-of-Way, an encroachment permit is required prior to commencement of work. Please allow 2 to 4 weeks for a complete submittal to be reviewed and for a permit to be issued. When applying for an Encroachment Permit, please incorporate Environmental Documentation, SWPPP/ WPCP, Hydraulic Calculations, Traffic Control Plans, Geotechnical Analysis, Right-of-Way certification and all relevant design details including design exception approvals. For specific details on the Department's Encroachment Permits procedure, please refer to the Department's Encroachment Permits Manual. The latest edition of the manual is available on the web site: http://www.dot.ca.gov/hq/traffops/developserv/permits/.

A5-15 cont.

Please continue to keep us informed of this project and any future developments, which could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Damon Davis at (949) 440-3487.

Sincerely,

Christopher Herre, Branch Chief
Local Development/Intergovernmental Review

C: Terry Roberts, Office of Planning and Research

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A5. Response to Comments from Christopher Herre, Branch Chief, Caltrans District 12, dated August 21, 2012.

A5-1 The commentator provides a summary of the 2012 Modified Project and notes that the California Department of Transportation is a responsible agency. The comment is noted and no response is necessary.

A5-2 The commentator states that significant cumulative impacts will occur to I-5, I-405, and SR 241 freeways and requests mitigation to address those impacts. Since Combined PA 51 is included in the NITM Program, the Traffic Impact Analysis analyzed the potential impacts to freeway mainline segments, ramps and intersections in accordance with the NITM ordinance and scopes of work requirements. This included an analysis of the potential cumulative impacts to and identified mitigations for I-5, I-405 and SR 241 which would reduce all impacts to less than significant. As lead agency, the City has appropriately determined the proper threshold for the traffic analysis. (CEQA Guidelines, § 15064(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."].). The City's thresholds for analysis of freeway/tollway mainline segments, freeway/ramp intersection, arterial roadway segments, and arterial intersections are clearly described in Table 2-4 of the Traffic Impact Analysis. The City's traffic analysis performance criteria/impact thresholds are consistent with comprehensive NITM Program traffic study requirements. Therefore, the City of Irvine, as lead agency for the 2012 Modified Project, has determined that use of the NITM Program traffic study methodology is appropriate and consistent with past practices for projects governed by the NITM Ordinance. These thresholds of significance are also used in other jurisdictions such as the adjacent cities of Lake Forest and Orange. Moreover, the thresholds for measuring impacts were agreed upon as a result of the settlement agreement between Caltrans and the City, as discussed in more detail in Topical Response 3, NITM. Based on NITM and proposed mitigation, no significant impacts would result from the 2012 Modified Project unless outside agencies responsible for implementing their proposed mitigation decline to do so. In that and only in that case, the SSEIR like the 2011 Certified EIR concluded that traffic impacts may be significant and unavoidable. As a result, no changes to the SSEIR are necessary.

A5-3 The commentator states that it is interested in working with the City to prepare an amendment to NITM. Commentator is referred to Topical Response 3, NITM in Chapter 2.0 of this FSSEIR.

A5-4 The commentator makes a general comment regarding Section 130 of the California Streets and Highway Code regarding fair share agreement. Mitigation Measures TRAN 5, TRAN 7, TRAN 9, and TRAN 10 already require the landowner or subsequent property owner to make a good faith effort to enter into a fair share agreement(s) for implementation of infrastructure improvements. As a result, no changes to the SSEIR are necessary.

A5-5 The commentator questions the baseline that was used for the SSEIR. The commentator is referred to Topical Response 1 in Chapter 2.0 of this Final SSEIR ("FSSEIR").

A5-6 The commentator properly notes that a lead agency has a "right and responsibility to choose an appropriate threshold of significance when analyzing a project's environmental impacts." The commentator is referred to Response A5-2 regarding the appropriateness of using the City's NITM thresholds for the 2012 Modified Project. Therefore, the City of Irvine, as lead agency for the 2012 Modified Project, has determined that use of the NITM traffic study methodology and thresholds of significance are appropriate for determining impacts associated with the 2012 Modified Project, and this conclusion is supported by substantial evidence. No changes to the SSEIR are necessary.

A5-7 The commentator recommends use of Caltrans' suggested threshold of significance instead of the NITM Program traffic study methodology in analyzing State Transportation Facilities. Commentator is referred to response A5-2 and Topical Response 3, NITM in Chapter 2.0 of this FSSEIR. No changes to the SSEIR are necessary.

A5-8 The commentator requests that the City use a different methodology to calculate fair share contributions. The commentator is referred to Topical Response 3 in Chapter 2.0 of this FSSEIR.

A5-9 The commentator requests that a queuing analysis be done for the Bake Parkway and Lake Forest Drive ramps. In accordance with the NITM Ordinance that identifies specific performance criteria to be used for intersection and ramp locations, peak hour intersection traffic assessments and ramp capacity analyses have been performed in the Traffic Impact Analysis. Locations studied include the intersections of Bake Parkway at the I-5 Northbound Ramps, Bake Parkway at the I-5 Southbound Ramps, Lake Forest Drive at the I-5 Northbound Ramps, and Lake Forest Drive at the I-5 Southbound Ramps. Ramp facilities studied include the I-5 Ramps at Bake Parkway (SB Direct On, SB Loop On, NB Direct On, NB Loop On, SB Off, and NB Off), and the I-5 Ramps at Lake Forest Drive (SB Direct On, SB Loop On, NB On, SB Off, and NB Off). A project impact is not indicated at either the Bake Parkway or Lake Forest Drive interchange with the I-5 Freeway, based upon both the intersection capacity analyses and the ramp capacity analyses.

The difference between a ramp capacity analysis and queuing analysis is that a ramp analysis looks at the level of service based on the volume of the ramps while a queuing analysis looks at whether or not those cars stack back into the flow of traffic on the mainline. The results of the ramp capacity analyses performed at Bake and Lake Forest indicate that in no scenarios did the Project add more than 1% to the total volume of these ramps. Therefore, further analysis as requested by the commentator in the form of a queuing analysis is not warranted as determined by the lead agency at these ramps. In contrast, the Sand Canyon Ramps were determined to require queuing analysis by the lead agency and had volume increases of over 9% for some scenarios and the impacts identified have been mitigated. Ramp volumes at the Bake

Parkway and Lake Forest Drive interchanges with the I-5 Freeway are shown on the attached Tables 12 and 13 (see Appendix A of this FSSEIR), including 2012 Modified Project volume changes. For these interchange ramps, 2012 Modified Project volume increases are generally within one percent (1%). The directional volume changes in traffic volumes at the Bake Parkway and Lake Forest Drive interchanges, as shown on the attached Tables 16 and 17, are the result of features and proposed land use mix of the 2012 Modified Project which localize more trips in the project area through improved jobs/housing balance. No changes to the SSEIR are necessary.

A5-10 The commentator asks for an explanation as to why the 2030 traffic data shows a significant improvement from the 2015 traffic data. Traffic volumes generally increased throughout the study area between 2015 and 2030, including most freeway mainline segments and ramps. Tables 4-6 and 4-9 of the DSSEIR Traffic Impact Analysis (see Appendix I of the DSSEIR) list the roadway and intersection improvements programmed to occur between 2015 and 2030, and some study area locations benefit from these improvements. The SR-241 extension is included in the background condition for 2030 conditions because it is identified in the Transportation Corridor Agency Capital Improvement Program (the "TCA CIP"). Moreover, it is an assumed improvement in the Orange County Transportation Analysis Model (OCTAM). No changes to the SSEIR are necessary.

A5-11 The commentator asks why no mitigation is offered for the I-5 mainline north of Culver Drive. Tables 10-1 and 10-2 of the Traffic Impact Analysis (see Appendix I of the DSSEIR) list impact locations; Mitigation Measures are shown in Table 10-3 of the Traffic Impact Analysis (see Appendix I of the DSSEIR), which include fair share responsibility for participation in a directional capacity enhancement equivalent to a single general purpose lane at the I-5 Northbound mainline freeway segment north of Culver Drive. No changes to the SSEIR are necessary.

A5-12 The commentator questions the conclusions shown in Table 7-13 and 7-14 of the Traffic Impact Analysis. The 2012 Modified Project increase in peak hour trip ends is the result of the project's land use mix which localizes project traffic in the immediate area through improved jobs/housing balance. Although the on-site schools and parks and density bonus units linked to the 2012 Modified Project result in increases to total peak hour trip ends, project changes in peak hour directionality are favorable and the opportunity for local trips to occur within the area is significantly improved. The 2011 Approved Project had a jobs-housing ratio of 16,510/4,894, or 3.37. The 2012 Modified Project has a jobs-housing ratio of 17,572/9,500 (or 1.85) without the optional conversion and a jobs-housing ratio of 15,968/10,700 (or 1.49) with the optional conversion. As shown in Table 5.9-6 of the DSSEIR, the City had a jobs-housing ratio of 2.48 in 2010, well above the industry standard for an ideal jobs-housing ratio in the range of 1.3 to 1.7. The additional housing proposed by the 2012 Modified Project would therefore assist the City in achieving a healthier jobs-housing balance, whereas the currently approved non-residential uses at the Proposed Project Site attract commuters and visitors who live in other areas. Further, the need for additional schools and parks are partly a result of the density bonus units, which are being granted based on the 2012 Modified Project's inclusion of affordable housing.

The result is a combination of traffic volume decreases and increases on surrounding roadways, which are evaluated based upon a comprehensive travel demand modeling process and traffic analysis covering a broad study area. No changes to the SSEIR are necessary.

A5-13 The commentator states that the applicant should be required to provide fair share contributions for I-5 and I-405 NB north of Jeffrey Road and Culver Drive and asks about the pending projects. The pending projects analysis is included in Chapter 9 of the Traffic Impact Analysis, which addresses Special Issues. The project analysis in Chapters 6-8 (2015, 2030, and post-2030) addresses the project impact without these potential (not yet approved) pending projects. Mitigation measures TRAN 5, TRAN 6, and TRAN 9 identify improvements that would be implemented if the pending projects are not approved. If all of the pending projects are approved, mitigation measures TRAN 8, TRAN 9 and TRAN 10 would be implemented. No changes to the SSEIR are necessary.

A5-14 The commentator questions the capacity of the SR-133 NB loop on-ramp from Barranca Parkway and whether ramp capacity impacts will be mitigated. The ramp improvement is mitigating a cumulative ramp impact and is not intended to address mainline impacts because the 2012 Modified Project does not create an impact to the SR-133 mainline. The ramp has been evaluated and found to have capacity to handle the conversion of the HOV preferential lane to a second metered mixed-flow lane. This same analysis at this location was used for the City's recent approval of the PA 33 General Plan Amendment and Zone Change that added new residential units. The approval was not challenged. No changes to the SSEIR are necessary.

A5-15 The commentator provides advice on the timing and process for an encroachment permit. The comment is noted and no response is necessary.

LETTER A6 – Patrick J. Alford, Planning Manager, City of Newport Beach, Community Development Department (1 page)

CITY OF NEWPORT BEACH

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

August 23, 2012

Barry Curtis
Manager of Planning and Development Services
City of Irvine
Community Development Department
P.O. Box 19575
Irvine, CA 92623-0575

RE: DSSEIR for Heritage Fields Project 2012

Dear Mr. Curtis,

Thank you for the opportunity to comment on the Draft Second Supplemental Environmental Impact Report (DSSEIR) for the Heritage Fields Project 2012 General Plan Amendment and Zone Change. The Community Development Department, Planning Division recommends that DSSEIR.

The DSSEIR traffic analysis estimates that 1) under 2015 conditions, the 2012 Modified Project is forecast to generate 1,911 more AM peak hour trips, 2,263 more PM peak hour trips and 23,623 more daily trips compared to Without Project conditions; 2) that under 2030/Post-2030 conditions, the 2012 Modified Project with Option 1 or Option 2 is forecast to generate 1,377 more AM peak hour trips, 846 more PM peak hour trips and 9,784 more daily trips compared to 2011 Approved Project (baseline) conditions; and 3) that six (6) percent of the project traffic will be using the I-405 Freeway. Therefore, it would be appropriate to analyze intersections in the John Wayne Airport area. Specifically, we believe that the following intersections should be analyzed: **A6-1**

MacArthur at Campus.
Campus at Jamboree.
MacArthur at Jamboree.

Please feel free to contact me at (949) 644-3232 or PAlford@newportbeachca.gov if you have any questions.

Sincerely,

Patrick J. Alford
Planning Manager

3300 Newport Boulevard · Post Office Box 1768 · Newport Beach, California 92658-8915
Telephone: (949) 644-3200 · Fax: (949) 644-3229 · www.newportbeachca.gov/planning

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A6. Response to Comments from Patrick J. Alford, City of Newport Beach, Community Development Department, dated August 23, 2012.

A6-1 The commentator requests that the Traffic Impact Analysis include analysis of the following intersections: MacArthur Boulevard/Campus Drive, Campus Drive/Jamboree Road, and MacArthur Boulevard/Jamboree Road. Consistent with the City's policies and requirements of the NITM Program, the study area for the 2012 Modified Project is the NITM boundary, which does not include the three intersections noted in the comment letter. The City established NITM in 2003. The NITM boundary was based on the boundaries for all of the project traffic studies conducted prior to NITM, which were the basis of the 2003 Nexus Study. The NITM boundary was determined using the areas of impact for development within the following Planning Areas included within NITM: Planning Areas 1, 2, 5, 6, 8, 9, 30, 40 and 51. NITM is discussed in more detail in Topical Response 3 in Chapter 2.0 of this FSSEIR.

At commentator's request, the AM and PM peak hour intersection capacity utilization (ICU) analysis has been performed and it was determined that there would be no additional impact, as shown in Table 11 in Appendix E of this FSSEIR. Data is provided for the interim and long range future scenarios (2015, 2030 and Post-2030). The 2012 Modified Project does not trigger any significant traffic impacts at these three intersections, and the Traffic Impact Analysis results do not change.

The commentator also quotes trip generation numbers from the Traffic Impact Analysis. To the extent that the commentator is raising concerns regarding the trip generation for the 2012 Modified Project, this is addressed in Laguna Beach Comment A15-46a.

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LETTER A7 – John Fogarty, Assistant Superintendent of Business Services, IUSD (5 pages)

Irvine Unified School District
5050 Barranca Parkway, Irvine, California 92604-4652 • 949/936-5000 • FAX 949/936-5259 • www.iusd.org

August 23, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine
Community Development Department
P.O. Box 19575
Irvine, CA 92623-9575

RE: NOTICE OF COMPLETION AND NOTICE OF AVAILABILITY FOR THE HERITAGE FIELDS PROJECT 2012 GENERAL PLAN AMENDMENT AND ZONE CHANGE DRAFT SECOND SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

Dear Mr. Curtis:

Thank you for the opportunity to respond to the impacts of this project on the Irvine Unified School District (District). The below information summarizes our concerns related to the information contained within the Draft Second Supplemental Environmental Impact Report (SSEIR).

Section **5.10.3.1 Environmental Setting > Irvine Unified School District (IUSD)** states that: "There are currently 48 schools in IUSD, including 22 elementary schools, five middle schools, four high schools, two alternative education schools, and 15 Title I schools (IUSD 2012)." This information can be misleading since the Title 1 Schools within the District are housed on existing campuses. A more accurate description would be that IUSD contains 33 schools made up of 20 elementary schools, 2 K-8 schools, 5 middle schools, 4 comprehensive high schools, 2 alternative education schools. There are 15 Title 1 schools that are housed on existing sites throughout the District. **A7-1**

Section ***5.10.3.3 The 2011 Approved Project*** states that: "Subsequent to certification of the 2011 SEIR, Heritage Fields entered into a school mitigation agreement with IUSD (the "HF Mitigation Agreement") which included construction of two K-8 schools and one 2,600-student high school."

The first issue related to the above text has to do with the capacity being specified for the "one 2,600-student high school." Per IUSD Board Policy 7112 – new school capacity for high schools is defined as follows: "Permanent facilities to house 1800 students with infrastructure provision for relocatable buildings to house a maximum of 2,400 students. *(Temporarily suspended per Bd action 4/11/06 to allow a maximum enrollment of 2,600 at all four district comprehensive high schools.)"* **A7-2**

It is important to also note the additional requirements related to the "HF Mitigation Agreement" that specify the provisions in place related to Heritage seeking additional entitlements as being considered with the Draft SSEIR. Specifically, Section 7.2 of the HF Mitigation Agreement states: **A7-3**

BOARD OF EDUCATION
TERRY A. WALKER, Superintendent of Schools
IUSD . . . providing the highest quality educational experience we can envision.

7.2 Additional Entitlements and Development. The parties acknowledge that Heritage may in the future seek Additional Entitlements for the Property, which will generate Project Students for which school capacity will not be available unless additional provision is made for school facilities mitigation. Heritage shall notify the District of its actual or proposed submittal of any applications for Additional Entitlements, and the parties shall meet and confer for the purpose of agreeing upon Additional Mitigation and making any appropriate amendments to the provisions of this Agreement. "Additional Mitigation" for these purposes means construction or financing of (a) new K-8 facilities, or (b) financing of 9-12 facilities beyond 50% of the capacity of the High School, which facilities are capable of accommodating all of the Project Students generated by the Additional Entitlements ("Additional Facilities"). The number of Project Students projected to be generated by the Additional Entitlements shall initially be calculated based on the Actual Student Generation Rate for students from the ARDA Entitlements (to be adjusted based on the actual yield rate for the Additional Entitlements). Unless the parties otherwise agree the Additional Mitigation shall consist of the following:

(a) K-8 School Additional Mitigation. K-8 school facility impacts of development pursuant to Additional Entitlements shall be mitigated in the same manner and to the same extent as those from the ARDA Entitlements as set forth in Section 2, including payment of costs of Interim Classroom Facilities pending completion of K-8 Additional Facilities.

(b) High School Additional Mitigation. If Project Students exceed 50% of the capacity of the High School (adjusted to reflect any transfer of High School capacity pursuant to Section 3.10), Heritage shall pay its Facility Proportionate Share of the 9-12 Additional Facilities cost. Heritage shall also pay any costs of the 9-12 Interim Classroom Facilities pending completion of 9-12 Additional Facilities.

A7-3 cont.

While there is consistent acknowledgement that a mitigation agreement exists between IUSD and Heritage Fields, it should also be mentioned that the agreement specifies the mitigation requirements associated with pursuing any additional entitlements being proposed.

IUSD would also like to call attention to ***Section 5.10.3.4*** of the Draft SSEIR, which discusses the Environmental Impacts of the 2012 Modified Project. The "Impact Analysis" identifies two distinct scenarios for the potential number of dwelling units within IUSD's boundary that could result if the 2012 Modified Project is approved. Both scenarios rely on the premise that the dwelling units in the 2012 Modified Project would be located within the service boundaries of both IUSD and SVUSD. While each scenario is delineated as "plausible", the approval of the 2012 Modified Project does not limit the total number of dwelling units that will eventually be located in one or both of the districts occupying the Project site. Therefore, a scenario should be considered based on what the total impact may be if all the units were located in a single school district.

A7-4

Similar to the concerns shared for Section 5.10.3.3, page 5.10-20 under the IUSD section only refers to the two (2) K-8 Schools and one (1) High School when referencing the HF Mitigation Agreement. Since the 2012 Modified Project seeks additional entitlements beyond what was approved in 2011, Section 7.2 of the Heritage Fields Mitigation Agreement should be mentioned. Moreover, the aggregate student impact should be considered as it relates to the 2011 approved project and the potential impact that may arise if the maximum number of dwelling units are approved via the additional entitlements requested in

A7-5

the 2012 Modified Project (Table 1 below shows projected student impact based on 2011 District-Wide Student Generation Rates).

Table 1 – Aggregate Student Impact Analysis (District-wide SGRs)

	District-Wide SGR*	Currently Approved Dwelling Units	Projected Students for Approved Project	Projected Number of Schools Needed	2012 Modified Project	Total Dwelling Units	Projected Number of Students for Modified Project	Projected Number of Schools Needed	Variance (Modified - Approved)
K-6	0.22	4,894	1,077		5,806	10,700	2,354		1,277
7-8	0.062	4,894	303		5,806	10,700	663		360
K-8 Subtotal			1,380	1.53(a)			3,017	3.35(a)	1,637
9-12	0.127	4,894	622	0.26(b)	5,806	10,700	1,359	0.57(b)	737
TOTALS:			**3,382**				**7,394**		**4,012**

*District-wide rates are calculated by dividing all the students in the District by all the dwelling units in the District.
(a) Number of K-8 Schools needed is determined by dividing the total number of projected students by 900 (School Capacity).
(b) Number of 9-12 Schools needed is determined by dividing the total number of projected students by 2,400 (School Capacity).

A7-5 cont.

Based on using the 2011 District-wide student generation rates, the 2011 Approved Project would trigger the need for roughly 2 new K-8 schools, whereas the 2012 Modified Project indicates that there could be potential to require approximately 4 new K-8 schools. This variance in the number of students that could materialize with the additional entitlements being proposed in the Modified Project represent a significant need to ensure that adequate school housing is properly acknowledged and analyzed when conducting an environmental study. While the number of total units to be located in IUSD may vary if final approval is granted for this project, it is also important to note that District-wide student generation rates are also likely to fluctuate from year to year. Moreover, the HF Mitigation Agreement will rely on actual Project student generation rates once 1,000 Project units have been occupied, which is likely to be different than the District-wide rates being used for early analysis of the potential impacts related to the total number of students being projected from this Project.

For facility planning purposes IUSD relies on using Moderate Student Generation Rates, which are different from the District-wide rates. The Moderate rates tend to be more aggressive to help ensure IUSD plans for and can provide adequate facilities and capacity to support the increase in total enrollment each year. Table 2 demonstrates the potential impact on IUSD if the Moderate Student Generation Rates are applied to the 2012 Modified Project.

A7-6

Table 2 – Aggregate Student Impact Analysis (Moderate SGRs)

	IUSD Moderate SGR*	Currently Approved Dwelling Units	Projected Students for Approved Project	Projected Number of Schools Needed	2012 Modified Project	Total Dwelling Units	Projected Number of Students for Modified Project	Projected Number of Schools Needed	Variance (Modified - Approved)
K-6	0.3	4,894	1,468		5,806	10,700	3,210		1,742
7-8	0.067	4,894	328		5,806	10,700	717		389
K-8 Subtotal			1,796	2.00			3,927	4.36	2,131
9-12	0.123	4,894	602	0.25	5,806	10,700	1,316	0.55	714
TOTALS:			4,194				9,170		4,976

*Moderate rates are used for facility planning purposes and tend to be the most aggressive.
(a) Number of K-8 Schools needed is determined by dividing the total number of projected students by 900 (School Capacity).
(b) Number of 9-12 Schools needed is determined by dividing the total number of projected students by 2,400 (School Capacity).

A7-6 cont.

Based on using the current Moderate Student Generation Rates, the 2011 Approved Project would trigger the need for at least 2 new K-8 schools, whereas the 2012 Modified Project indicates that there could be potential to require up to 5 new K-8 schools.

In addition to the Moderate and the District-wide Student Generation Rates, the 2011 School Facilities Needs Analysis (SFNA) has also been considered when forecasting future enrollments. The SFNA was prepared by Dolinka Group in February of 2011 and this report looked at dwelling units constructed over the past five (5) years to develop student generation rates. Table 3 demonstrates the potential impact on IUSD if the 2011 SFNA Student Generation Rates are applied to the 2012 Modified Project.

Table 3 – Aggregate Student Impact Analysis (2011 SFNA SGRs)

	IUSD 2011 SFNA SGR*	Currently Approved Dwelling Units	Projected Students for Approved Project	Projected Number of Schools Needed	2012 Modified Project	Total Dwelling Units	Projected Number of Students for Modified Project	Projected Number of Schools Needed	Variance (Modified - Approved)
K-6	0.22	4,894	1,077		5,806	10,700	2,354		1,277
7-8	0.04	4,894	196		5,806	10,700	428		232
K-8 Subtotal			1,272	1.41			2,782	3.09	1,510
9-12	0.03	4,894	147	0.06	5,806	10,700	321	0.13	174
TOTALS:			2,692				5,885		3,193

*2011 SFNA rates are derived from looking at dwelling units constructed over the previous 5 years from the date the report was generated (February 9, 2011).
(a) Number of K-8 Schools needed is determined by dividing the total number of projected students by 900 (School Capacity).
(b) Number of 9-12 Schools needed is determined by dividing the total number of projected students by 2,400 (School Capacity).

A7-7

Based on using the 2011 SFNA Student Generation Rates, the 2011 Approved Project would trigger the need for roughly 2 new K-8 schools, whereas the 2012 Modified Project indicates that there could be potential to require up to 4 new K-8 schools.

A7-7 cont.

Thank you again for the opportunity to respond to the potential impacts this project may have on our District. Should you have any questions regarding any of the comments provided in response to the Draft SSEIR, or need additional information, please do not hesitate to call me at (949) 936-5308.

Sincerely,

John Fogarty
Assistant Superintendent of Business Services

Cc: Terry Walker, Superintendent (IUSD)
Lloyd Linton, Director of Facilities Planning & Construction Services (IUSD)
Lorrie Ruiz, Assistant Director, Facilities Planning (IUSD)

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A7. Response to Comments from John Fogarty, Assistant Superintendent of Business Services, IUSD, dated August 23, 2012.

A7-1 The commentator requests edits to the DSSEIR related to the number of schools within IUSD. Per the commentator's request, the reference on Page 5.10-10 of the DSSEIR has been revised as follows:

> Irvine Unified School District (IUSD)
>
> The majority of the Proposed Project Site is served by IUSD. There are currently 33~~48~~ schools in IUSD, including 20~~22~~ elementary schools, two K-8 schools, five middle schools, four comprehensive high schools, and two alternative education schools.~~, and~~ There are 15 Title I schools that are housed on existing sites throughout the IUSD's district (IUSD 2012). The overall capacity of IUSD schools is shown in Table 5.10-2.

A7-2 As discussed in Section 5.10.3, School Services, of the DSSEIR, on July 21, 2011, and as noted by the commentator, the applicant entered into a school mitigation agreement with IUSD ("School Mitigation Agreement") to establish a comprehensive mitigation program to address the Proposed Project's impacts on school facilities in the IUSD.. The School Mitigation Agreement provides:

> "The intent of this Agreement is that, in lieu of payment of fees or other mitigation funds or compliance with other School Mitigation Requirements, Heritage shall provide land and school facilities sufficient to fully mitigate the impact of development of the Property."

The agreement further provides that

> "The purpose of this Agreement is to establish a comprehensive program for mitigation of all school facilities impacts of development of the Property. By entering into this Agreement and complying with its terms, Heritage shall be deemed to have fulfilled and mitigated Heritage's entire obligation to assist in the construction or funding school facilities to serve the Project Students."

The commentator notes that the SSEIR states that the capacity of the new High School will be 2,600, and indicates that, per Board policy, new school capacity for high schools is defined as permanent facilities to house 1,800 students with infrastructure for relocatables to house a maximum of 2,400 students. The School Mitigation Agreement describes the fifth high school as including "permanent facilities to serve 2,400 students" with "an additional peak loading of 200 students" in relocatable classrooms. , Consistent with this calculation of total students, the School Mitigation Agreement states (in section 3.10) that students from the Proposed Project shall be entitled to "50% of the capacity of the High School (1,300 Seats, with 1,200 Seats of permanent capacity and 100 peak loading Seats)." The School Mitigation Agreement further provides that if students from the applicant's project exceed 50% of the capacity of the fifth high school, the applicant shall finance "9-12 facilities

beyond 50% of the capacity of the High School, which facilities are capable of accommodating all of the Project Students."

A7-3 The commentator states that the DSSEIR should be revised to take note of the additional mitigation requirements that would be applicable for entitlements above and beyond those contemplated in the School Mitigation Agreement. At commentator's request, the following shall be added at the end of the last paragraph of Section 5.10.3.3:

> Using IUSD's projections, the 2011 Certified EIR determined that within five years, no open seats would be available at any of the elementary, middle or high school facilities that would otherwise serve the area of the Approved Project Site. However, this impact was determined to be less than significant since developers of the 2011 Approved Project would be required to pay impacts fees in accordance with SB 50. Those fees would be used by IUSD to reduce any impacts to the school system and would, pursuant to California Government Code Section 65995(h), constitute full mitigation of the impacts of the 2011 Approved Project related to the provision of adequate school facilities.
>
> Subsequent to certification of the 2011 SEIR, Heritage Fields voluntarily entered into a school mitigation agreement with IUSD (the "HF Mitigation Agreement") which included construction of two K-8 schools and one 2,600-student high school. Section 7.2 of the HF Mitigation Agreement acknowledges that the applicant may seek entitlements beyond those for the 2011 project, and that additional provision for school facilities may be required to accommodate project students generated by such additional entitlements. The HF Mitigation Agreement provides that (1) K-8 school facility impacts of development pursuant to such additional entitlements "shall be mitigated in the same manner and to the same extent" as those from the 2011 project as set forth in the HF Mitigation Agreement; and (2) if students from the applicant's development exceed 50% of the capacity of the High School, the applicant shall pay its proportionate share of the cost of high school facilities needed to accommodate such additional students. The School Mitigation Agreement provides that by complying with the terms of that agreement, "Heritage shall be deemed to have fulfilled and mitigated Heritage's entire obligation to assist in the construction or funding school facilities to serve the Project Students." Thus, if implemented, the Mitigation Agreement will constitute full mitigation for the 2012 Modified Project.

A7-4 The commentator states that the SSEIR should analyze a scenario in which all of the residential units, including the optional conversion, are located within the boundaries of IUSD. The SSEIR makes a reasonable assumption about the physical location of the residential units, which is all that is required by CEQA in this case. If all 10,700 units were to be located within IUSD boundaries, and students from applicant's project were to exceed the capacity of the school facilities described in the School Mitigation Agreement, that agreement provides that applicant shall construct or finance additional K-8 facilities and 9-12 facilities "capable of accommodating all of

the Project Students," which would constitute full mitigation for the 2012 Modified Project. No changes to the SSEIR are necessary.

A7-5 The commentator provides charts showing a scenario in which 10,700 dwelling units would be located within the boundaries of IUSD. The comment analyzes 4,894 dwelling units that are approved and vested (see Topical Response 1 in Chapter 2.0 of this FSSEIR regarding baseline). . If all of the project units were to be located within IUSD's boundaries, the density of such units would necessarily be much higher than those currently projected for the Proposed Project. The higher densities would result in lower student generation rates under the circumstances. If students from applicant's project nonetheless exceeded the capacity of the school facilities contemplated under the Mitigation Agreement, as discussed in response A7-4, that agreement provides that the applicant would construct or finance additional school facilities capable of accommodating all of the students from the Proposed Project which would constitute full mitigation for the 2012 Modified Project. No changes to the SSEIR are necessary.

A7-6 The charts in the comment letter show the number of schools projected to be needed calculated by dividing the total number of projected students by 900. However, the K-8 Schools to be constructed to accommodate students from the Proposed Project are defined as having "a total capacity of 900 students with additional peak loading capacity of 100 students." (School Mitigation Agreement, page 6). No changes to the SSEIR are necessary.

A7-7 The commentator provides data showing a scenario in which 10,700 dwelling units would be located within the boundaries of IUSD using a variety of student generation rates. As the draft letter acknowledges, the School Mitigation Agreement provides that the number of students projected to be generated by additional development in the 2012 Modified Project shall initially be calculated based on the actual student generation rate for students from the 2011 project, to be adjusted based on the actual yield rate for students from the 2012 Modified Project. The comment letter includes charts using district-wide and "moderate" student generation rates, which show much higher numbers of students. However, pursuant to the Mitigation Agreement only actual student generation rates from the 2011 Approved Project and the 2012 Modified Project will be used to project school facilities needs. No changes to the SSEIR are necessary.

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LETTER A8 – Michael J. Le Blanc, The Irvine Company (23 pages)

IRVINE COMPANY
Since 1864

August 23, 2012

Barry Curtis, Manager of Public Services
City of Irvine
Community Development Department
P.O. Box 19575
Irvine, CA 92623

Re: Comment on Draft Second Supplemental Environmental Impact Report for Heritage Fields 2012 - General Plan Amendment and Zone Change

On behalf of the Irvine Company, I am submitting our comments on the Draft Second Supplemental Environmental Impact Report (DSSEIR) for Heritage Fields 2012 - General Plan Amendment and Zone Change (the "Project"). We comment from the perspective of a long-term master planner experienced in the disciplined application of rigorous standards and planning principles that ensure quality results while necessarily adapting to shifting market trends and economic dynamics that affect both the public and private sectors. Inherent in this approach is reliance upon sound information, procedures that are consistently applied, and analysis that is sufficiently deep in detail to render well-fashioned plans and policy. Our work with the City of Irvine from its inception over 40 years ago in this collaborative planning process has yielded a city known for its master planning and an un-paralleled quality of life. As the city approaches the completion of its first cycle of development, preservation of those attributes is paramount for both the built environment and the as yet un-built portions of the city.

We also comment as an owner holding property interests within the proposed revised Planning Area and as adjoining landowner surrounding the Project site. In addition, the Irvine Company has a detailed contract with the City concerning mitigation for traffic impacts in North Irvine under the North Irvine Traffic Mitigation ("NITM") Implementing Agreement (the "NITM Agreement"). In that regard, the Irvine Company has a long-term mutual interest with the City and other property owners subject to the NITM program to ensure that the environmental analysis and mitigation for environmental effects in North Irvine fulfill the NITM program's requirements.

After reviewing the documents on the Project, we are troubled by an apparent departure from the typical application of processes, procedures and analytical discipline that has been historically used by the City. Hence, we are concerned that impacts on the infrastructure including the circulation system, drainage facilities, the existing neighborhood parks and the provision of public services are not adequately disclosed or properly mitigated. We believe that part of this concern stems from an incomplete project description and deficiencies in the evaluation technique. For example, the current proposed project is significantly different than the original project of 2003 the last time a comprehensive evaluation of that project's impact on the physical environment was conducted. Since then, a series of incremental changes have occurred accompanied only by a comparative evaluation against the last preceding plan, thus

1

550 Newport Center Drive, Newport Beach, CA 92660 949.720.2000

avoiding a more rigorous standard of review as typical city procedures would usually require. Aside from this caution, there are a number of errors, examples of inconsistent analyses, and inadequacies in both the study methodology and proposed mitigations that we request be addressed prior to city action on the Project.

To aid the City in its consideration of these concerns we have compiled the attached Exhibit which provides specific explanation of the issues and questions we have derived from our review of the subject environmental document.

Sincerely,

Michael J. Le Blanc

Attachment

c: Lynn Jochim

2

EXHIBIT 1
IRVINE COMPANY COMMENT LETTER DATED AUGUST 23, 2012 ON DRAFT SECOND SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (DSSEIR) SCH# 2002101020 DATED JULY 2012

1. On Page 1-1 of the DSSEIR, and elsewhere in the document, it is stated that the 2011 Approved Project (defined as the combined actions analyzed in the 2003 OCGP EIR, the eight subsequent Addenda and the 2011 SEIR, thereto) is the "baseline" for the analysis in this DSSEIR.

   Because of an incomplete project description and other shortcomings of the analysis provided in the circulated DSSEIR, it is not entirely clear whether the proposed Project is a modification of an existing project or an entirely new project requiring fresh environmental review. Nonetheless, it appears that substantial changes have been made to the Project, even since the 2011 SEIR, including a nearly two-fold increase in the number of dwelling units, alterations to circulation system and newly defined land uses.

   Furthermore, the DSSEIR does not accurately describe the combined impact of the entire project on the environment because it does not use the correct environmental baseline for a SEIR. The impacts of the evolving project have been incrementally considered since the 2003 OCGP EIR in several different environmental documents by spreading the project into separate parts across the original EIR, eight addenda, and two supplements to that EIR (a total of eleven separate environmental documents). With this piecemeal approach, the public is unable to determine the combined environmental impact of the entire project on the environment, or even the combined impact of all of the changes to the project since 2003. **A8-1**

   Rather than comparing the "2012 Modified Project" to the existing environment, or even comparing the 2012 Modified Project to the Project as described in the original 2003 EIR, this *second* supplement minimizes impacts by simply measuring the difference between this year's modifications compared to the 2011 modifications. Without an analysis comparing the proposed project to the initial 2003 EIR, the extent of project impacts relative to traffic, air quality and other key areas of concern to us as an adjacent property owner cannot be fully presented or understood. For example, the incremental revisions (assuming the mixed use conversion to residential) to the 2003 Project over time have resulted in what we compute to be a significant 93% increase in AM outbound traffic trips, resulting from the large scale increase in residential units.

   At a minimum, the City should evaluate project impacts compared to the baseline established in the 2003 OCGP Final Program Environmental Impact Report ("OCGP EIR"), and not use a supplement-to-supplement comparison. With this updated information, full and complete public disclosure will best be served. Otherwise we are left with the impression that the DSSEIR fails to adequately disclose the true impacts of the project which is the fundamental purpose of the environmental document.

2. Beginning on page 1-8 in the "Executive Summary" and then further in the section entitled "Project Description", the DSSEIR states that the Project proposes to amend the General Plan and Zoning Ordinance to allow 3,412 multi-use residential units within a revised Planning Area **A8-2**

51 (combining Planning Areas 30 and 51), in addition to the 4,894 units already allocated in Districts 1 North, 1 South, 4, 7, and 8. Also, the Project proposal includes an option to convert up to 535,000 square feet of multi-use intensity to residential intensity for up to an additional 889 dwelling units within District 6 and Lot 48 of 2nd Amended VTTM 17008, subject to a vehicle trip limit. Moreover, the Project will grant up to 1,194 additional density bonus units, plus up to 331 density bonus units associated with the optional conversion. Thus, the Project could range from an additional 4,606 residential units to 5,826 units. This level of flexibility associated with the mixed use conversion creates confusion in the project description and raises substantive issues about whether or not the DSSEIR accurately discloses the true impacts on the physical environment particularly given the incremental approach used in the analysis as further described in subsequent comments.

In addition to this concern, a glaring omission in the project description is the exclusion of any proposed zoning text, including any special development requirements and text for zoning category 8.1B which is noted but not described anywhere. This should be included as part of the project with the circulated environmental documents available to the public during the CEQA review period.

A8-2 cont.

Furthermore, while the DSSEIR lists "advance funding" for the implementation of recreational facilities for the Great Park as an "objective" of the project (page 3-9), there is no discussion of this objective or how it is to be implemented to be found anywhere in the circulated document. The DSSEIR fails to explain the basis for funding the OCGP improvements, some of which are relied upon to mitigate project impacts (recreation and circulation). Without this discussion it is unclear how components of the project including mitigation measures are funded and therefore lacks any reliable phasing scheme. As implementation of facilities at the Great Park are assumed to off-set the increased population impacts on recreation facilities, the project description should include a specific discussion of what is the "advance funding" and how it will occur.

Therefore, we encourage the City to consider revising the Project description to more fully describe the intended Project.

3. On Page 1-8, under Section 1.4 and then elsewhere later in the document it is noted that a "TCA" parcel is being incorporated into Planning Area 51. With this action the NITM boundary should also be adjusted to include this area in lieu of keeping within PA9 in order to avoid future confusion (i.e. NITM Development Areas) should any of this area be included as a development area.

A8-3

4. Beginning on page 5.7-1, Section 5.7 is lacking discussion relative to the Proposed Project's consistency with relevant local, approved, plans. Without a complete version of the proposed zoning text, consistency with existing zoning and other relevant approvals on topics such as elimination of height limits, site coverage requirements, and the use of "accessory retail" intensity cannot be fully understood or evaluated.

A8-4

Another relevant plan deserving attention is the Irvine Transit Vision as it was developed based on the Great Park General Plan Land Use that existed in April 2009. If this GPA is approved, the Great Park land use plan will have been amended two times since Council adoption of the Irvine Transit Vision. It would seem that an analysis of the Irvine Transit Vision as potentially impacted

by the revised land uses ought to be included in the DSSEIR. As such, the Proposed Project should include an Irvine Transit Vision update that reflects the significant land use changes that have been made (i.e. reduction in employment, increase in housing, modifications of proposed roadway system and update in the Great Park Master Plan). The proposed route modification of Irvine Station 1 Route as discussed in Section 9.5 and shown on Exhibit 9-25 of the traffic study provides some preliminary thinking in that regard. However, an updated Irvine Transit Vision for the Great Park is needed to address alternative route options, ridership projections, 30 year cost and funding opportunities at the same level of detail as included in the adopted Irvine Transit Vision.

Similarly, the DSSEIR has not discussed consistency implications of the Proposed Project relative to subdivision maps and other discretionary case applications (i.e. residential master plans, park plans) already approved and vested by the City. We encourage the City to consider whether the proposed Project is consistent with those prior vested approvals. If not, the City may desire to revise such approvals at the same time that it conducts environmental review of the proposed Project. If the City is not in a position to draft conforming amendments until new conforming maps/master plans are prepared, it may be prudent for the City to simply include a special development requirement in the zoning that all prior approvals inconsistent with new General Plan and/or zoning proposed with his project be amended or rescinded prior to any development of the project area. See also comment 22 below.

A8-4 cont.

Finally with respect to Consistency with Existing Land Use Plans and Policies, the DSSEIR is lacking in that it does not address, or even mention, consistency of the proposed project to the approved OCGP Master Plan. See also comments 25 and 26 below.

5. In Section 5.6, the Hydrology and Water Quality analysis is incomplete. Current zoning includes a defined wildlife corridor from Irvine Boulevard south to the boundary of the Southern California Regional Rail Authority rail lines, consisting of approximately 132 acres. This corridor provides a crucial missing link between the Cleveland National Forest to the north and Crystal Cove State Park to the south. The DSSEIR fails to consider the implications of relocating the wildlife corridor, relative to the existing Sub-Area Management Plan ("SAMP") and the issuance of permits for development relying on the current SAMP. Discussion/analysis to determine whether or not relocating and reshaping the wildlife corridor may require an update to the master plan of drainage for San Diego Creek through Planning Areas 51 and 30; the Water Quality Management Plan; and/or the Natural Treatment System water quality basin plans, that could in turn have impacts on off-site infrastructure, is also missing from the DSSEIR.

A8-5

Comparison to the 2012 Plans and 2011 Plans is difficult, if not impossible, because of the differences in the level of detail between the two development applications. The omission of basic graphic depictions in the DSSEIR is a flaw throughout the document. There is not one exhibit in the hydrology or water quality sections, or in the related technical reports (appendices) that depict project features or mitigation measures discussed in the text and tables. Important missing exhibits include drainage subareas and patterns, major water quality BMPs, backbone utilities and depictions comparative changes that have occurred from 2011 to 2012 much less from 2003 to 2012.

Considering the 2012 Project's significant site changes in land use, grading and drainage patterns, including the relocation of the wildlife corridor, please explain why an update of the

San Diego Creek Watershed Master Plan of Drainage, including approval by OCFCD, was not included with the DSSEIR. If the City chooses to defer this analysis, at a minimum, a mitigation measure requiring update of the Master Plan of Drainage prior to development should be added to DSSEIR.

Please explain why the DSSEIR does not include an update to the existing WQMP. Although the document is supposed to cover all property within VTTM 17008, it appears that HFET and OCGP are doing independent or stand alone WQMPs, but the DSSEIR does not compare or analyze this situation adequately. Neither the Section 5.6 Environmental Analysis or associated Appendix F Water Quality Technical Report deals with an integrated regional approach to urban runoff, water quality treatment, nor how the WQMP does or does not incorporate the IRWD NTS Master Plan facilities. If the City chooses to defer this analysis, at a minimum, a mitigation measure requiring update of the WQMP prior to development should be added to DSSEIR.

A8-5 cont.

Finally, please explain why an update of the NTS section of the IRWD PA 30 & 51 SAMP related to the use of water quality basins was not included with the DSSEIR. If the City chooses to defer this analysis, at a minimum, a mitigation measure requiring update of the NTS portion of the SAMP prior to development should be added to DSSEIR.

6. In Section 5.8, Noise, it appears that an assessment of potential noise impacts associated with increased traffic on freeways was not included in the circulated DSSEIR. If such an analysis is available, a summary in Section 5.8 would be helpful to the reader. See also comment 35 below.

A8-6

7. In Section 5.12, the Utilities and Services Systems analysis is incomplete. With the 2012 Project's significant changes in land use, especially added residential density in Districts 5 and 6 and the high school in District 5, there are changed demands and capacity issues for backbone utility systems needed to serve the project. The location and size of sewers and the existing capacity of downstream trunk sewer systems to handle increased peak flows is one example, as compared to the 2011 project. To address such concerns, we believe an IRWD approved SAMP updates should have been included as a part of the project. If the City chooses to defer this analysis, at a minimum, a mitigation measure requiring update of the SAMP prior to development should be added to DSSEIR.

A8-7

8. On Page 5.10-24 the DSSEIR references a PPP (PPP 10-10) as a measure that will help "...reduce and avoid potential impacts related to library services and facilities." First, we are unaware of any adopted Plan, Program or Policy that would implement PPP 10-10 as drafted. Instead, based on past City actions, the text noted in the first sentence of PPP 10-10 has been incorporated into adopted Planning Area zoning (e.g., PA 39) as a Special Development Requirement. We believe that an identical Special Development Requirement should be incorporated into the proposed project.

Secondly, even if PPP 10-10 is converted to a Special Development Requirement and added into proposed zoning, we cannot see how full credit against a yet to be determined fee can be assumed at this time as articulated in the second sentence of PPP 10-10. On what basis does the applicant receive a credit for a 39,000 square foot library against an as yet undefined library fee? How does the applicant earn the credit? Is the applicant building the library and stocking it with books? The measure suggests a full credit against the fee—whatever that fee is and whatever the applicant's role might be (or not be) in implementing the library.

A8-8

Absent any additional nexus analysis or specific library fee program being made available for public review at this time we would assert that a Special Development Requirement should not include any premature consideration of credits and should simply read as adopted for other Planning Areas (e.g., PA 39) as follows:

> ***Libraries. In the event a citywide library impact fee is adopted and in force, the developer shall pay this fee prior to issuance of building permits for new development.***

A8-8 cont.

9. On Page 5.11-6 of the DSSEIR, discussion on private parks should note those parks were designed and built to serve residents within the neighborhoods developed per the city park code and Quimby Act dedication requirements. It should not be presumed that recreational needs of increased population anticipated with this project will be met by existing HOA parks listed.

A8-9

10. On Page 5.11-10 of the DSSEIR, under Interim Park Impacts it is accepted that there might be interim impacts on existing parks resulting from new, added development.

    As indicated on Tables 5.11-5a and 5.11-5b the proposed Project would result in an additional 4,606 to 5,826 dwelling units beyond those already allocated and approved. It is noted that this will increase in population an additional 11,324 to 14,274 above the current plan will increase the need for Neighborhood parks. We disagree that the city should accept that there might be interim impacts to existing public neighborhood parks; the city has the ability to require phasing of neighborhood parks to ensure timely development concurrent with residential development. We cannot recall any time where the City has allowed neighborhood park impacts to be met off-site, outside a planning area, even on an interim basis, thus impacting existing neighborhoods. The city should include as a special development requirement in the proposed zoning a provision that requires the phased improvement of neighborhood parks coincident with residential development in Planning Areas 30 and 51 so that new development will not impact existing public or HOA parks.

A8-10

11. Page 5.12-7 of the DSSEIR states LOS "E" would be considered acceptable level for intersections impacted in Planning Areas 13, 31, 32, 34, 35, 39 and a portion of combined PA 51. It is not clear however as to why this change in LOS E General Plan policy is needed since the proposed policy is not needed per the finding of the traffic study. Both intersections (799 and 831), which are within the area shown on DSSEIR Figure 3-6, operate at an acceptable LOS without this General Plan policy change (LOS "C" and "A" respectively in 2030 and "B" and "A" in Post 2030). Finally, the proposed application of this LOS E policy is not consistent with other mixed use areas of the City as stated in the Statement of Objectives on Page 3-9. LOS E was permitted in IBC and Spectrum 1 before any residential development was permitted. No other mixed use areas (i.e. Woodbridge, PA 12 and PA 40) permit LOS E. Please provide a discussion as to why this deviation from adopted General Plan Policy is included as a part of the Proposed Project.

A8-11

12. On Page 5.12-7 The LOS E General Plan policy discussed includes language that would permit LOS E at the Sand Canyon/I-5 interchange ramps/intersections. When this policy was added to the City General Plan, for this particular location, Planning Area 40 (PA 40) was assumed to be non-residential based on the existing General Plan Land Use at the time. However, a subsequent GPA amended PA 40 to allow residential development between Jeffrey Road and

A8-12

Sand Canyon Avenue and mitigations required at this location for residential development were approved so the level of service at this location would not exceed LOS D. Accordingly, if the City is to allow LOS E at this intersection, the previous mitigations required on Company developments to achieve LOS D should be modified to allow LOS E per this revised policy.

A8-12 cont.

13. On Page 5.12-34 in the DSSEIR, PDF 12-1 states that the conversion of the mixed use to residential units would be governed by a trip cap based on ADT, AM Peak and PM Peak equivalent trip generation. No documentation has been provided as to the specific trip generation caps that will be used for this equivalency. It is further noted that the traffic study only provides socioeconomic based trip generation rates for each proposed land use. However, City staff in its 5/11/2011 comment letter on the PA 6 GPA has stated that trip monitoring and development trip limits shall be based on NITM land use trip generation rates.

    This potential conversion should be analyzed in this DSSEIR. Even though the conversion is limited to an ADT, Total AM Peak Hour and Total PM trip caps per PDF 12-1, the directionality of peak hour trips (employment versus housing) should be addressed with this DSSEIR and not be deferred to a subsequent analysis. The Company recently obtained City approval for a GPA within PA 6 that permitted either non-residential or residential development subject to a trip cap. For that project the City unequivocally concluded that the impact of converting non-residential to up to 790 residential units (less than the 1,200 potential units proposed for conversion with this application) needed to be addressed with the GPA traffic study and not deferred to a subsequent analysis. More specifically, in its 5/11/2011 comment letter to the Company regarding the PA 6 GPA application, the City stated the following:

    a. "...staff continues to believe that consistent with the requirements of the NITM Ordinance this application should include the preparation of a Comprehensive NITM Traffic Study. The ordinance states that it should be prepared and filed in connection with an application to amend the General Plan or zoning to modify the allowable land uses or intensity in all or a portion of one or more Future Development Areas. Given that residential uses are a likely scenario for the property, a Comprehensive Traffic Study would be needed to determine the impacts of such a change in use."
    b. "This application requests a General Plan Amendment and Zone Change to allow for residential uses, among others. This should be analyzed to determine the potential change to the List of NITM Improvements, not only in the interim year (currently 2015) as is required by the NITM map level traffic study, but also in the General Plan Buildout conditions (currently (2030/P2030)."
    c. "The proposed change to allow, most notably, residential uses in the conditionally permitted land uses category could potentially result in shifts in trips (both by direction and/or peak hour) potentially resulting in different impacts than previously identified. This should be analyzed and discussed in the PEIR addendum..."

    We also note that the DSSEIR air quality and school impact assessment has analyzed the impact of this potential mixed use conversion to residential. Please explain the basis for the inconsistent approach relevant to the traffic impacts.

    Finally, PDF 12-1 includes a provision for future traffic studies associated with the optional conversion of non-residential square footage to residential units, if implemented. The language of this PDF could be interpreted to exclude any requirement to assess the impacts of

A8-13

the density bonus units associated with this conversion. As stated earlier, this conversion should be evaluated as a part of this DSSEIR. Our concern is magnified by this PDF, which could allow the density bonus units to never be analyzed since they might be excluded from any future traffic study requirement. This exclusion is not permitted by CEQA. **A8-13 cont.**

14. On Page 5.12-133 Mitigation Measure TRAN 1 provides an alternative transportation management plan option to annexation of the Project Area into Spectrumotion. The last sentence of the mitigation measure states that "the implementation (payment of assessment dues) for either option described above shall occur prior to issuance of building permit(s)." Spectrumotion dues are collected from its members on an annual basis in accordance with the CC &Rs, which provides an ongoing and guaranteed revenue source for its operations. The subject sentence appears to require only one payment for the transportation management plan at building permit(s) rather than an ongoing annual payment. Please confirm this mitigation measure will result in a sustainable funding source for the required transportation management plan. **A8-14**

15. On Page 5.12-134 Mitigation Measure TRAN 3 requires a NITM Fee Reallocation Study to recalculate the NITM Fees reflecting any fair share allocation modifications. This mitigation measure was required for the 2011 Approved Plan but has not been submitted to the City to the best of our knowledge. Will a NITM Fee Reallocation Study for the 2011 Approved Plan still be submitted to be followed by a NITM Fee Reallocation Study for the 2012 Modified Project? Since it is likely that the results of either of these NITM Fee Reallocation Studies will result in a NITM Fee reduction for our remaining developments in PA 40 and PA 5B (no increase is permitted per the NITM Ordinance except associated with any cost index adjustments), we are concerned that the required NITM Fee Reallocation Study for the 2011 Approved Plan has not yet been prepared. As such, should the Company pay NITM fees for any development prior to City adoption of either or both the 2011 Approved and Modified Projects, we request that the City affirm that the Company or any Assessment District paying such fees would receive reimbursement for any overpayment of NITM fees as a result of delay in finalization of these required NITM Reallocation Plans. **A8-15**

16. On Page 5.12-134 Mitigation Measure TRAN 4 has been changed from that adopted in the Final Mitigation Measure and Report Plan for the 2011 Approved Project. In response to our comment on the SDEIR for the 2011 Approved Project, the City stated that TRAN 4 was modified to delete "fair share" as Heritage Fields is responsible to fully fund this measure. However, TRAN 4 has now been changed back to the earlier language to incorporate the "fair share" provision. This is unacceptable for the same reasons as identified previously. We are also concerned that the language of this Mitigation Measure allows deferral of implementation of the Jeffrey/Roosevelt improvements until approval of the last final map for the "2011 Approved Project". First, assuming approval of this GPA, there never will be a final map for the 2011 Approved Project. Secondly, even if the language is changed to "prior to approval of the last final map for the 2012 Modified Project", this mitigation measure could result in the impacts at this intersection occurring prior to approval of the final map with no means to require the Project to construct the required improvements. The mitigation measure should be revised to be consistent with the mitigation measure for PA40/12. **A8-16**

17. On Pages 5.12-135-137 the language of TRAN 5 and TRAN 7 are similar to mitigation measure language required of Company projects, but different in two significant ways as follows: **A8-17**

a. This language only requires construction of the improvement if the TTM/TPM project impacts the subject intersection. Given that the TTM/TPM traffic will generate significantly less traffic than the DSSEIR Project, it is unlikely that the impact threshold will be reached for any TTM/TPM resulting in no requirement to construct the mitigation improvements. In effect, the cumulative impact of all the individual TTMs/TPMs is ignored. The language should be changed such that the mitigation requires construction once the intersection is projected to have an ICU of 0.91 or above in the TTM/TPM study.
b. In the case where the improvement is not shown as impacted by the Project, the proposed language could be interpreted to mean that the Project would only be responsible for a fair share of the cost. To avoid this possible mis-interpretation, the last sentence of the measure (before the bulleted intersection locations) should be modified to delete "pay fair share of the costs" and replace with "provide funding for the TTM/TPM's fair share allocation towards the full funding obligation of the Project to the future implementation of the necessary improvements"

A8-17 cont.

18. On Pages 5.12-138 and 139, TRAN 9 and 10 require a fair share agreement to be entered into with Caltrans regarding the freeway mainline impacts. The timing requirement for this agreement is not required until prior to approval of the last final map for the Project. Will this final map be responsible for the fair share obligation of the entire GPA Project? PA 18/39 had an identical requirement for a fair share agreement with Caltrans for mainline impacts. However, the City required this fair share agreement ***to be in place prior to issuance of the first non-model building permits for PA 18, PA 39 or Lot 109 in PA 33***. A similar timing requirement should be required of this Project.

A8-18

19. On Page 5.12-139 the DSSEIR identifies mitigation measures for the impacts to the I-5 and I-405 mainlines. Fair share mitigation in a directional capacity enhancement equivalent to a single general purpose lane is proposed. Since the OCTA/Caltrans has recently approved a PSR for the widening of I-5 between I-405 and SR55 and is preparing a PSR for the I-405 between I-5 and SR 55, it is recommended that that the fair share participation be based on the design concept included in these PSRs

A8-19

CEQA/TRAFFIC STUDY SCOPE COMMENTS

20. Given the extent of land use changes since approval of the 2003 OCGP EIR, should the DSSEIR Baseline for traffic be Ground (i.e. existing land uses) or the overlay land use from the 2003 OCGP EIR? To demonstrate how the project trip generation has been significantly increased since the 2003 OCGP EIR, the attached table has been developed to show a comparison of socioeconomic trip generation between the 2003 Overlay Plan as documented in the 2003 OCGP EIR in comparison to the 2003 Overlay Plan, the 2011 Approved Project, the 2012 Modified Project and the 2012 Modified Project (with the Multi-Use conversion) using the updated trip rates in the DSSEIR. As can be seen, the outbound AM peak hour traffic has increased by 78.7% (92.6% with the mixed use conversion) and the inbound PM peak hour traffic has increased by 52.3% (57.8% with the mixed use conversion) when comparing the 2012 Modified Project to that analyzed in the 2003 OCGP EIR. It is also noted that while the stated purpose of

A8-20

the DSSEIR has been to analyze the impacts of only the Heritage Fields 2012 Modified Project within Districts 1-8, it is also noted that the ADT and PM peak hour trip generation assumptions for the City/Other Properties has also increased since the 2003 OCGP EIR based on the updated trip generation rates used in the DSSEIR. The impact of these increases should also be addressed.

A8-20 cont.

21. Table 3-1 of the DSSEIR Traffic Study provides the ITAM trip generation rates for all of the proposed project land uses. These rates include ADT, AM peak hour (inbound, outbound and total) and PM peak hour (inbound, outbound and total). Based on these trip generation rates, Tables 3-2 thru 3-7 in the Traffic Study provide a comparison of the resulting trip generation between the No Project Baseline and Proposed Project (Options 1 and 2). However, these comparison tables only provide the AM total and PM total trip generation and thus do not demonstrate how the proposed Project changes the directionality of AM and PM (inbound and outbound) peak hour trips. The attached tables provide this comparison and show that the Heritage Fields Districts 1-8 AM outbound trip generation, for example, is actually increased by 46.3% by the Project (6,972 vs. 4,764) in comparison to the 2011 Approved Project. This increase is even higher at 58.4% if the mixed use conversion to residential is allowed (7,547 vs. 4,764). The DSSEIR should clearly document the change in directionality of AM and PM peak hour trip generation.

A8-21

22. The Project Description would result in significant land uses changes within the VTTMs that have been approved for Districts 1North and 1South. If this GPA is approved by the City, what is the changed status of these VTTMs? From a traffic analysis standpoint, the 2015 traffic impact study included in this DSSEIR would not satisfy the requirements for a TTM NITM traffic study for these revised map areas. Specifically, the DSSEIR traffic analysis is a confusing mixture of "plan to plan" and "Ground to Plan" impact analysis (see comment 24 below). The required NITM tract map study is a "Ground to Plan" analysis for the entire tract map area and is not limited to only portions of the tract map area.

A8-22

23. Notwithstanding our concerns noted in comments 1 and 20, please explain the different or inconsistent approach for defining the No Project (Baseline) between Year 2015 and the Year 2030/P-2030 traffic analysis. In Year 2015 a "Ground to Plan" analysis was appropriately assumed for those locations within Districts 1N and 1S where the land use is proposed to be modified from the 2011 Approved Plan. However, for the Year 2030 and P-2030 analysis, a "Plan to Plan" assessment was utilized which results in potentially underestimating impacts. As such, the Year 2030 and P-2030 traffic analysis should be revised accordingly.

A8-23

24. Table 3-8 of the DSSEIR Traffic Study provides a trip generation summary with and without the Project. This summary is incorrect as it does not include the trip generation of the total Project. Assuming that the Project does not include any trip generation changes to the City/Other Properties (discussed above in comment 20), this table should be modified to include at a minimum all of the additional public uses shown in Tables 3-1 through 3-7, particularly the high school site which is included in the Project Description.

A8-24

25. Table 2-2 of the DSSEIR Traffic Study provides a summary of land use assumptions for the No Project Baseline and the Project (Options 1 and 2). Footnote 4 on this table states that the number of parking stalls for the OCGP has increased by 402 parking spaces to account for the approved Western Sector Plan. Has this increase in parking spaces been cleared

A8-25

environmentally so that this increase can be included in the No Project Baseline assumption or should this increase only be included as part of the Project Description? Table 3-1 (footnote 2) also states that "the AM, PM and ADT rates for the OCGP are not being approved or established as part of this analysis". This statement needs to be more fully explained. Please explain how this study can be utilized to determine the cumulative impact of all development within PA51 if the trip rates for the OCGP cannot be established as part of this study. If the trip generation for the OCGP is not established as part of this study, please explain how this study meets the requirements of a NITM Comprehensive Traffic Study to determine the impact on the List of NITM Improvements and associated subsequently revised NITM fees. Finally, please explain if the OCGP will be subject to a revised trip cap as assumed in this DSSEIR.

A8-25 cont.

26. It is unclear if the OC Great Park Master Plan is being updated as a part of this action. The DSSEIR does not discuss compatibility or consistency with the OC Great Park Master Plan relative to the proposed project; however, Page 2-1 of the traffic study indicates that the proposed Sports Park and associated improvements shall be designed with the current ADT trip budget and is therefore assumed to have been previously analyzed. There is not any information provided regarding any changes in the AM or PM peak hour characteristics of the proposed Sports Park and no mention is noted regarding the remainder of the OC Great Park Plan. Without such information it is impossible to comprehensively determine whether the location of Great Park uses as planned at this time is consistent with the location of these uses assumed in the traffic forecast. Please confirm whether or not circulation assumptions for the OC Great Park Master Plan are consistent with the circulation assumptions included in the traffic forecast. While not significantly impacting the off-site traffic forecasts, any circulation inconsistency could have a material impact, for the project area, for example, on the traffic forecasts on "O" Street southerly of Trabuco Road. Finally, the DSSEIR implies in the project description that there will be an accelerated Great Park improvement schedule. Please provide an updated schedule and provide information as to whether any of the OC Great Park will be accelerated such that it would impact Year 2015 traffic forecasts.

A8-26

27. The May 27, 2011 Urban Crossroads Traffic Study for the 2011 Approved Plan(Table 3-1) used ITE land use based trip generation rates while Table 3-1 of this DSSEIR traffic study uses ITAM 8.4-10 socio-economic trip rates. As such, it is not possible to compare the trip generation assumptions from both studies to determine if the No Project assumptions for the 2011 Approved Plan in this DSSEIR are consistent with those used previously. Consistent data is critical to assure a uniform basis upon which to properly implement relevant trip cap limitations and NITM fair share funding requirements. Please explain the use of this inconsistent approach for documenting trip generation.

A8-27

28. The list of pending projects is summarized on Page 9-2 of the DSSEIR traffic study. This list should, but does not, include any of the pending GPAs currently being evaluated in the City of Lake Forest. Please explain why these known pending projects have not been included in the traffic analysis.

A8-28

29. Page 2-8 of the DSSEIR Traffic Study states that partially funded NITM Improvements are assumed to be in place in the Post 2030 scenarios. This analysis is a departure from implemented City practices. We recognize that the SEIR for the 2011 Approved Project assumed the partially funded NITM Improvements in the Post 2030 scenarios. However, prior to circulation of the 2011 SEIR, a sensitivity analysis was prepared at our request to verify that this

A8-29

assumption did not impact the findings of the SEIR. As a result, there was not a need to raise this issue in our formal comments on the First SEIR. This DSSEIR should be modified to remove the assumption that partially funded NITM Improvements are included in the Post 2030 scenario in order to determine if any additional mitigation measures are required.

A8-29 cont.

30. Various mitigation measures have been recommended to address projected Year 2030 impacts. We have the following concerns regarding some of the specific mitigations that have been proposed:
    a. Browning Avenue/Irvine Boulevard: Unless the City of Tustin is willing to accept ATMS as a mitigation measure, an alternative mitigation (i.e. adding a third westbound thru lane or second northbound left turn lane) and any physical impacts associated with alternative improvements should be considered in the DSSEIR.

    b. Jeffrey Road/Barranca Parkway: The DSSEIR recommends the advancing of the PA1/9 GPA/ZC ATMS P-2030 mitigation at this location. This would be inconsistent with City practices as the City has permitted ATMS mitigation only where a physical improvement at that intersection is not feasible. In this case, implementation of a southbound defacto right turn lane is feasible. This improvement is a fair share funded NITM Improvement. As such, a mitigation measure to fund the unfunded portion of this NITM improvement should be required with the Proposed Project.

    c. Bake Parkway/Rockfield Boulevard: No mitigation has been proposed because the LFTM Program in the City of Lake Forest includes a conversion of a westbound thru lane to a third westbound left turn lane. As identified in Table 4-10, the traffic study has not assumed this conversion until the P-2030 scenario. Since the Project impacts this intersection in the Year 2030 analysis, the Project should be required to advance this conversion improvement.

A8-30

    d. Sand Canyon Avenue/Oak Canyon: The DSSEIR recommends fair share funding for the previously identified PA40/12 mitigation at this location. The PA 40/12 mitigation addressed P-2030 impacts (not Year 2030 impacts as identified in this DSSEIR). As such, specific mitigation measure language should be proposed for this impact similar to the language required for PA 40/12 GPA/ZC. This language requires full (not fair share) funding of this improvement if the improvement is identified as needed in a subsequent NITM TTM/TPM traffic study (regardless of whether the need is created by the subject TTM/TPM).

    e. Culver Drive/Bryan Avenue: The DSSEIR recommends the construction of a westbound defacto right turn lane for Option 2 impacts. The City previously determined in past studies that this westbound defacto right turn lane was not feasible due to the limited width between the northerly Bryan Avenue curb and the existing residential wall at this corner. Therefore, a design concept should be developed that shows how this improvement can be feasibly constructed and physical impacts of this concept should be addressed in this DSSEIR. If a westbound defacto right turn lane is determined to be not feasible, an alternative mitigation measure should be identified and assessed in this DSSEIR.

f. Sand Canyon/I5 NB off-ramp: The DSSEIR recommends the conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap or an alternative to designate LOS E acceptable at this location and satisfy the requirements through TMSOS/ATMS participation. A review of the northbound right turn lane volumes at this intersection shows that the Project will result in a significant increase in this movement for all analyzed conditions (2030/Post 2030 and Baseline/Pending scenarios). For example, 2030 Baseline volumes increase from 896vph to 1074vph with the Project (Option 1), City guidelines would suggest the need for a free right turn for this movement, but only a defacto right turn lane would be provided if LOS E alternative mitigation was selected. The impacts associated with this increased northbound right turn lane (i.e. the need for either a free right turn lane or dedicated right turn lane) should be addressed including any impacts on the existing Irvine Community Church at this intersection. In any event, the LOS E alternative should not be allowed as it would not provide the needed northbound right turn capacity resulting from the Project volume increases.

A8-30 cont.

31. Various mitigation measures have been recommended to address projected P- 2030 impacts. We have the following concerns regarding some of the specific mitigations that have been proposed:
    a. Jeffrey Road/Roosevelt: The DSSEIR recommends converting the eastbound shared thru/right lane to a thru lane and the addition of an additional eastbound right turn lane to mitigate project impacts. The DSSEIR should include a design concept (including right of way acquisition requirements) that shows how this improvement can be feasibly constructed within the very limited space between the existing southerly curb on Roosevelt and the existing office building on the south side of the roadway. The impacts of this widening concept (including noise and aesthetic impacts) should be addressed in this DSSEIR.

    b. Jeffrey Road/Alton Parkway: The DSSEIR recommends an eastbound right turn lane with right turn overlap phase to mitigate project impacts resulting in an eastbound lane configuration of two left-turn lanes, two thru lanes and one right-turn lane. Page 8-62 of the traffic study states that this configuration would be the ultimate eastbound lane configuration. However, the NITM Program includes a future third eastbound through lane. Is this mitigation intended to replace this current NITM improvement? If so, the removal of this NITM improvement is subject to input from the NITM Advisory Committee. Until this Committee action occurs, the DSSEIR should include a design concept to show how this improvement can be implemented and be in addition to the future NITM project. The DSSEIR should address the impacts of this widening to adjacent residential development in Woodbridge.

A8-31

32. Table 9-34 does not address the significant changes to the southbound right turn lane at Bake Parkway/Marine Way. As shown in Exhibit 9-28 on page 9-199, the AM southbound right turn lane increases from 434vph to 702 vph with Option 1 or to 709 vph with Option 2 based on Exhibit 9-32 on page 9-204. Exhibit 9-37 on page 9-220 identifies that only a defacto right-turn lane is recommended for this very high volume. It is noted that the traffic study appendix does not include this defacto right turn lane in the Year 2030 or P-2030 ICU calculations for this intersection. A volume of 702 vph would require a free right turn per City requirements. The DSSEIR should evaluate how this free right turn would be accommodated (or even a standard

A8-32

right turn lane) without impacting the existing development parking lot to the northwest of this intersection including the Bake Parkway accesses to this parking lot. Impacts of such improvements to the existing development should be addressed in the DSSEIR. **A8-32 cont.**

33. Option 2 includes changed land uses in District 1South. Please confirm if these changed land uses also include changes in the assumed roadway system. Will "LY" Street and "C" Street be extended southerly of Trabuco Road to "LV" Street with Option 2? The traffic model assumptions include these extensions for the assessment of Option 2. If they are not extended, the Option 2 forecasts should be revised to determine if there are any additional traffic impacts (i.e. "O" Street/Trabuco intersection). **A8-33**

34. The traffic analysis states that the City of Lake Forest Traffic Analysis Model (LFTAM) was used within the City of Lake Forest. However, a review of the forecasts indicates that the Year 2030 LFTAM forecasts were actually used for both the Year 2030 and P2030 analysis. In order to fully understand and evaluate Project impacts, the traffic study needs to be revised to use P-2030 LFTAM forecasts for the P-2030 analysis. **A8-34**

35. The approved traffic study scope states that ADT/link volumes will be provided within the traffic analysis study area. However, no existing or projected ADT volumes are provided within the study area for I-5, I-405, SR 133 north of I-405, SR 241 or SR 261. The noise study for the DSSEIR has only addressed the potential noise impacts for arterial roadways. No noise impact assessment was included for any of the above listed State Highways. It is further noted that the traffic study identified significant peak hour impacts on certain stretches of I-5 and I-405 as a result of the Project due to increased traffic volumes. Despite this acknowledged peak hour traffic volume increase on these stretches of I-5 and I-405, no noise impact assessment was included in the DSSEIR for these impacted State Highways. **A8-35**

36. An alternative configuration for the Sand Canyon/I-5 ramp intersection has been proposed to address an HCM deficiency. However, modifying the intersection as suggested would result in unacceptable LOS E (ICU methodology) at this intersection. If this alternative ramp configuration is to be pursued further, an improvement should be identified to mitigate this LOS E impact based on required City ICU methodology and performance standards. **A8-36**

37. A number of proposed mitigations are identified in TRAN 5 and TRAN 7 as no longer needed if "all" Pending Projects are approved. Some proposed mitigations are identified as needed only if "all" Pending Projects are approved. Given the long list of Pending Projects and given the long time period before the PA 51 development may be completed, please explain how the City will administer these mitigation measure requirements. For example, the need for mitigation at Laguna Canyon Road/Old Laguna Canyon Road intersection is likely governed by the potential MPAH amendments for the deletion of the Bake Parkway and Santa Maria extensions to Laguna Canyon Road, but likely not governed by the PA 36 MPAH amendments for Von Karman and Alton Parkway in IBC. The language of the currently proposed TRAN 5 and TRAN 7 mitigations would require the 4th thru lane at Laguna Canyon/Old Laguna Canyon even if the Bake/Santa Maria MPAH Amendment is approved but the Von Karman/Alton MPAH Amendment has not. As such, revisions to TRAN 5 and TRAN 7 are recommended which would require a re-evaluation of the mitigation needs associated with the pending project analysis with each subsequent TTM/TPM NITM study. This re-evaluation should be consistent with that conducted for the PA 40 TTM traffic study to verify whether the proposed mitigation should be made. These revisions **A8-37**

are also required to establish any TTM/TPM fair share obligation towards this mitigation, if still needed. **A8-37 cont.**

38. The traffic study does not assume the recent PA 6 GPA that permitted 790 residential units. Rather, it assumes 500,000 S.F. of non-residential. Given that residential development is the most likely scenario, the traffic study for this DSSEIR should also assume this land use. **A8-38**

39. The traffic study identifies two alternative treatments (free right turn or extended dedicated right turn lane) for accommodating the significant increase in the southbound right turn volumes at the Trabuco Road/"O" Street intersection. Incorporation of a free right turn is constrained by the existing SCE sub-station. A design concept needs to be included and assessed in the DSSEIR to identify the right of way impacts associated with this free right turn, which potentially may require additional right of way from the Company within PA 40 and/or impact VTTMs 17283 and 17368. **A8-39**

40. The eastbound right turn lane Year 2030 AM peak volumes at the Trabuco/"O" Street intersection have been increased significantly since approval of the PA 40/12 GPA (425vph vs. 564vph). The cumulative impact of both the 2011 Approved Plan and the 2012 Modified Plan appear to have caused this increase. A free right turn should be required to mitigate this impact and would also be beneficial to accommodate weekend/special event traffic to the OCGP. **A8-40**

ADDITIONAL TECHNICAL COMMENTS

41. Pages 4-1 and 4-8 of the DSSEIR Traffic study lists arterials in the study area that exceed ADT V/C (LOS) performance criteria for existing conditions. Culver Drive (Main Street to San Leandro), Culver (San Leandro to I-405 NB ramps) and Sand Canyon north of Oak Canyon are listed but Exhibit 4.3 shows an acceptable LOS for these segments. Please explain why Portola Parkway south of SR 241 SB ramps is listed since no data is provided in Exhibit 4.3 to demonstrate this unacceptable LOS. Culver Drive (Walnut to I-5) should be included since the ADT V/C is 0.92. Please verify whether Trabuco Road (Culver to I-5 ramps) should be included. In the past the City has not allowed the calculation of the assumed additional capacity associated with the third eastbound lane which functions as a merge/weave lane. **A8-41**

42. The El Toro/Avenida Carlota intersection should be added to the list of existing intersections on Page 4-8 with unacceptable LOS. Table 4-1 shows that this intersection is LOS F for both the AM and PM peak hours. **A8-42**

43. Table 4-1 should add the existing LOS for the Portola Springs/Portola Parkway intersection. **A8-43**

44. Table 4-8 should be revised to note correct funding sources as follows:
    a. The 2nd EBL at the Culver/Warner intersection is also a MCAS(Tustin) obligation
    b. The PA 40 VTTM has no obligation for the Jeffrey/Alton SB defacto right turn lane
    c. There is no interchange improvements proposed at Sand Canyon/Oak Canyon. The description of proposed improvements should be revised. The source for the 2015 improvements, which are planned at this intersection, is the NITM Program and the Irvine CIP/PA13/PA31.
    d. The source of funding for the Laguna Canyon/Technology intersection is PA 31

A8-44

45. Table 4-7 lists the improvement of the Old Laguna Road crossing of I-405 as a 2030-Post 2030 improvement, but that improvement should be moved to Table 4-6 (2015-2030 Committed Roadway Improvements) since it is assumed in the ITAM 2030 baseline highway network applied in the traffic study. **A8-45 cont.**

46. Table 9-25 should be modified to include the Option 2 impact at the Jeffrey/Alton intersection as shown in Table 9-22. **A8-46**

47. Exhibit 9-25 on page 9-194 identifies proposed bus turnouts and transit stops. This Exhibit is focused on areas northerly of the railroad tracks. The Exhibit should be modified to show proposed bus turnouts and transit stops south of the tracks consistent with the land use changes proposed with this GPA, particularly in light of PDF's 4-1 and 4-2. **A8-47**

48. An Irvine Station iShuttle Route variation of the "Irvine Station 1" route as shown in the Irvine Transit Vision Study is identified in Exhibit 9-25. Please verify that the proposed transit stops along LQ Street will be acceptable considering that the City approved a TTM 17008 cross section deviation for this roadway which resulted in a narrower outside shoulder which could result in a stopped transit vehicle blocking the flow of traffic. **A8-48**

49. The Proposed Project has modified the land use assumptions in District 7. Since these modifications were included in the approved VTTM 17366 for District 7, why were these land use modifications not also incorporated into the No Project Baseline? In the past, the City has updated Baseline assumptions to be consistent with the approved tract maps for Years 2015 and 2030. Any additional un-built GP/zoning entitlement, which has not been included within the approved tract map, should be included in the P-2030 assumptions. **A8-49**

50. The Traffic Analysis Study Area is depicted on Exhibit 1-3. This study area includes SR 133 south of Lake Forest Drive to SR 73 and SR 133 between Old Laguna Canyon Road and I-405. However, the traffic analysis has failed to address these segments of SR 133 (i.e. no existing or projected ADT/link volumes for these segments of SR 133 have been provided). The study should be revised accordingly. Also, the ADT volumes shown for SR133 south of Old Laguna Canyon Road on the future (2015, 2030 and P-2030) ADT exhibits are much lower than the existing and existing plus project SR 133 ADT volumes shown in Chapters 4 and 5 of the traffic report. This decrease appears to be due to incorrect ADT counts that are applied in the ITAM 8.4-10 ADT post-processing specifications. The ADT counts applied in the post-processing should be corrected and the future ADT and ADT V/C exhibits in the traffic report should be updated accordingly. **A8-50**

51. The ADT projections for Irvine Center Drive between I-405 and Research Drive are low. The existing volume is reported as 30,000 ADT. However, the Year 2015 forecasts are shown as 11,800 ADT with and without the Project. Similar discrepancies are shown for Year 2030 and P-2030 forecasts. The ADT forecasts and any associated peak hour assessments should be corrected. **A8-51**

52. In the future (2015, 2030 and Post-2030) intersection LOS summary (ICU methodology) tables that are presented in the traffic study, the intersection locations where ATMS should be applied (i.e. 0.05 ICU reduction) are not addressed properly. For example, the application of ATMS that **A8-52**

the City of Irvine has approved for the following intersections is not reflected in the ICU summary tables: 34, 135, 224, 226, 228, 229, 235, 283, 289, 290, 302 and 383. **A8-52 cont.**

53. The existing and future (2015, 2030 and Post-2030) ICU LOS summary tables also have various errors in the "LOS E OK" columns of the tables. All of the tables should be corrected to note that LOS E is acceptable at the Lake Forest/ICD and El Toro/Trabuco intersections. Also some of the tables incorrectly indicate that LOS E is acceptable at the Lake Forest/Rockfield, Bake Parkway/Rancho Parkway North and Lake Forest/Rancho Parkway North intersections. **A8-53**

54. None of the 2015 HCM intersection delay (seconds) entries in Table 6-3 and Table 6-9 match the delay estimates shown in the 2015 HCM worksheets in Appendices 6.03 and 6.06. **A8-54**

55. Chapter 9 discusses recommended changes to intersection geometry (i.e. left and right turn lane dimensions) within the Project area. However, no discussion was included in the DSSEIR on how the off-site traffic volumes changes as a result of the Project might impact intersection geometry in the surrounding areas. **A8-55**

56. Page 9-213 recommends an increase in the length of the southbound right turn lane for "O"Street/Marine Way intersection. Since this intersection is a "T" intersection, there is no need for a southbound right turn lane. The second southbound curb lane on "O" Street can function as the right turn lane at this intersection. **A8-56**

HERITAGE FIELDS
LAND USE AND TRIP GENERATION SUMMARY

Scenario/Area	AM Peak Hour			PM Peak Hour			ADT
	In	Out	Total	In	Out	Total	
2003 OCGP EIR Project (a)							
Total	7,531	4,150	11,681	5,861	7,653	13,514	148,455
2003 OCGP EIR Project (b)							
Heritage Fields (Districts 1-8)	6,055	3,749	9,804	4,949	6,137	11,086	116,539
City/Other Property	1,829	645	2,474	1,202	1,880	3,082	31,801
Total	7,884	4,394	12,278	6,151	8,017	14,168	148,340
2011 Approved Project (b)							
Heritage Fields (Districts 1-8)	6,396	4,764	11,160	5,738	6,560	12,298	129,775
City/Other Property	1,534	446	1,980	2,026	2,321	4,347	33,321
Total	7,930	5,210	13,140	7,764	8,881	16,645	163,096
Percent Increase (c)	5.3%	25.5%	12.5%	32.5%	16.0%	23.2%	9.9%
2012 Modified Project (b)							
Heritage Fields (Districts 1-8)	6,046	6,972	13,018	6,905	6,542	13,447	142,970
City/Other Property	1,533	445	1,978	2,025	2,320	4,345	33,304
Total	7,579	7,417	14,996	8,930	8,862	17,792	176,274
Percent Increase (c)	0.6%	78.7%	28.4%	52.4%	15.8%	31.7%	18.7%
2012 Modified Project With 535 TSF of Multi-Use Replaced With 889 Multi-Family Base Units and 311 Single Family Density Bonus Units (b)							
Heritage Fields (Districts 1-8)	5,720	7,547	13,267	7,222	6,416	13,638	145,347
City/Other Property	1,533	445	1,978	2,025	2,320	4,345	33,304
Total	7,253	7,992	15,245	9,247	8,736	17,983	178,651
Percent Increase (c)	-3.7%	92.6%	30.5%	57.8%	14.2%	33.1%	20.3%

(a) From Table 5-21 of the December 18, 2002 OCGP GPA/ZC Traffic Impact Analysis report (Urban Crossroads, Inc.)

(b) Based on the peak hour and ADT socioeconomic-based trip generation rates in Table 3-1 of the June 26, 2012 Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis report (Urban Crossroads, Inc.)

(c) Compared to 2003 OCGP EIR Project (Table 5-21 of the December 18, 2002 OCGP GPA/ZC Traffic Impact Analysis report, Urban Crossroads, Inc.)

HERITAGE FIELDS
LAND USE AND TRIP GENERATION SUMMARY

2003 OCGP EIR Project

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Heritage Fields								
Auto Center	102 TSF	176	95	271	189	227	416	4,353
Education	7,800 Students	1,638	390	2,028	702	1,248	1,950	20,514
Elementary School	650 Students	104	13	117	26	46	72	806
Retail	225 TSF	493	270	763	538	639	1,177	12,312
University Residential (a)	60 DU	7	33	40	28	12	40	429
Senior Housing	800 DU	80	272	352	232	144	376	4,088
Transitional Housing (a)	165 DU	17	83	100	69	31	100	1,082
R&D	2,600 TSF	1,872	520	2,392	936	1,690	2,626	27,092
Cultural/Inst./Expos.	708 TSF	878	319	1,197	630	942	1,572	16,341
Agriculture	213 Acre	34	9	43	13	28	41	428
Golf Course	526 Acre	163	63	226	132	179	311	3,235
Cemetery (a)	730 Acre	1	0	1	1	1	2	13
Chapel/Mortuary	50 TSF	27	8	35	14	26	40	407
TOD Residential	1,500 DU	180	840	1,020	645	345	990	10,725
TOD Retail	75 TSF	164	90	254	179	213	392	4,104
TOD Office	75 TSF	67	18	85	32	58	90	941
Residential/Golf Village	1,100 DU	154	726	880	583	308	891	9,669
Sub-Total		6,055	3,749	9,804	4,949	6,137	11,086	116,539
City/Other Property (b)								
Institutional Warehouse	263 TSF	132	32	164	53	108	161	1,654
OCTA Facility/Terminal	176 TSF	95	23	118	37	77	114	1,179
Transportation Center	1,050 Spaces	210	53	263	84	168	252	2,625
Cultural/Inst./Expos.	768 TSF	952	346	1,298	684	1,021	1,705	17,725
Agriculture	90 Acre	14	4	18	5	12	17	181
Habitat/Wildlife Corridor	1,382 Acre	14	14	28	14	14	28	235
OS Park	367 Acre	77	26	103	48	81	129	1,318
Sports Park (a)	165 Acre	335	147	482	277	399	676	6,884
Sub-Total		1,829	645	2,474	1,202	1,880	3,082	31,801
Total								
Total Trip Generation		7,884	4,394	12,278	6,151	8,017	14,168	148,340
Total Model Trip Generation (c)		7,531	4,150	11,681	5,861	7,653	13,514	148,455

(a) Peak hour and ADT socioeconomic-based trip generation rates for these categories were derived from the version of ITAM applied in the 2003 OCGP EIR traffic study. Peak hour and ADT trip rates for all other categories were taken from the ITAM socioeconomic-based trip generation rates shown in Table 3-1 of the June 26, 2012 Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis report (Urban Crossroads, Inc.)

(b) 2003 OCGP EIR Project land uses listed in Table 5-21 (OCGP GPA/ZC Traffic Impact Analysis report, December 18, 2002, Urban Crossroads, Inc.) for Planning Analysis Zones (PAZs) 3, 4, 12a, 12b, 13, 14, 15, 16, 20, 21, 22a, 22b, 23, 24 (Transit Oriented Development only), 25 (Transportation Facility only) and 32.

(c) From Table 5-21 of the December 18, 2002 OCGP GPA/ZC Traffic Impact Analysis report (Urban Crossroads, Inc.)

HERITAGE FIELDS
LAND USE AND TRIP GENERATION SUMMARY

2011 Approved Project

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Heritage Fields Districts 1-8								
SFD Residential	2,741 DU	384	1,808	2,192	1,453	767	2,220	24,093
Multi-Family Res.	1,971 DU	237	1,104	1,341	847	454	1,301	14,092
Senior Housing	182 DU	18	62	80	53	33	86	930
Retail	300 TSF	657	360	1,017	717	852	1,569	16,416
Office/Multi-Use	75 TSF	67	18	85	32	58	90	941
R&D	2,600 TSF	1,872	521	2,393	937	1,690	2,627	27,092
Auto Center	102 TSF	176	95	271	189	227	416	4,353
K-8 School	650 Students	104	13	117	26	46	72	806
College/University	7,741 Students	1,626	387	2,013	696	1,239	1,935	20,358
Child Care	11 TSF	27	9	36	17	27	44	462
Church	25 TSF	13	4	17	7	13	20	203
Chapel/Mortuary	50 TSF	27	8	35	14	26	40	407
Exposition Center	708 TSF	913	326	1,239	651	970	1,621	16,829
Golf Course	150 Acre	47	18	65	38	51	89	923
Agriculture	12.5 Acre	2	1	3	1	2	3	25
Sub-Total		6,170	4,734	10,904	5,678	6,455	12,133	127,930
Additional Public Uses (Heritage Fields)								
K-8 School	1,350 Students	216	27	243	54	95	149	1,674
Park	47.6 Acre	10	3	13	6	10	16	171
Sub-Total		226	30	256	60	105	165	1,845
City/Other Property								
Warehousing	263 TSF	132	32	164	53	108	161	1,654
Government Facility	70.9 TSF	100	33	133	62	101	163	1,693
OCTA Facility/Terminal	176 TSF	95	23	118	37	77	114	1,179
Transportation Center	1,050 Spaces	210	53	263	84	168	252	2,625
Cultural/Institutional	300 TSF	372	135	507	267	399	666	6,924
Parking (OCGP)	5,037 Spaces	598	153	751	1,505	1,443	2,948	18,838
Agriculture	90 Acre	14	4	18	5	12	17	181
Habitat/Wildlife Corridor	1,283.4 Acre	13	13	26	13	13	26	218
Sub-Total		1,534	446	1,980	2,026	2,321	4,347	33,321
Total								
Total Trip Generation		7,930	5,210	13,140	7,764	8,881	16,645	163,096

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HERITAGE FIELDS
LAND USE AND TRIP GENERATION SUMMARY

2012 Modified Project

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Heritage Fields Districts 1-8								
SFD Residential	3,358 DU	470	2,216	2,686	1,781	940	2,721	29,516
Multi-Family Res.	5,960 DU	716	3,337	4,053	2,562	1,372	3,934	42,613
Senior Housing	182 DU	18	62	80	53	33	86	930
Retail	220 TSF	482	264	746	526	625	1,151	12,038
Office/Multi-Use	1,282.2 TSF	1,141	308	1,449	551	1,000	1,551	16,092
R&D	3,364 TSF	2,422	673	3,095	1,211	2,187	3,398	35,053
K-8 School	650 Students	104	13	117	26	46	72	806
Child Care	11 TSF	27	9	36	17	27	44	462
Church	25 TSF	13	4	17	7	13	20	203
Sub-Total		5,393	6,886	12,279	6,734	6,243	12,977	137,713
Additional Public Uses (Heritage Fields)								
K-8 School	1,350 Students	216	27	243	54	95	149	1,674
High School	2,600 Students	416	52	468	104	182	286	3,224
Park	100 Acre	21	7	28	13	22	35	359
Sub-Total		653	86	739	171	299	470	5,257
City/Other Property								
Warehousing	263 TSF	132	32	164	53	108	161	1,654
Government Facility	70.9 TSF	100	33	133	62	101	163	1,693
OCTA Facility/Terminal	176 TSF	95	23	118	37	77	114	1,179
Transportation Center	1,050 Spaces	210	53	263	84	168	252	2,625
Cultural/Institutional	300 TSF	372	135	507	267	399	666	6,924
Parking (OCGP)	5,037 Spaces	598	153	751	1,505	1,443	2,948	18,838
Agriculture	90 Acre	14	4	18	5	12	17	181
Habitat/Wildlife Corridor	1,180 Acre	12	12	24	12	12	24	201
Sub-Total		1,533	445	1,978	2,025	2,320	4,345	33,304
Total								
Total Trip Generation		7,579	7,417	14,996	8,930	8,862	17,792	176,274

HERITAGE FIELDS
LAND USE AND TRIP GENERATION SUMMARY

2012 Modified Project With 535 TSF of Multi-Use Replaced With 889 Multi-Family Base Units and 311 Single Family Density Bonus Units

Land Use	Units	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Heritage Fields Districts 1-8								
SFD Residential	3,669 DU	514	2,421	2,935	1,946	1,027	2,973	32,250
Multi-Family Res.	6,849 DU	822	3,835	4,657	2,944	1,576	4,520	48,970
Senior Housing	182 DU	18	62	80	53	33	86	930
Retail	220 TSF	482	264	746	526	625	1,151	12,038
Office/Multi-Use	747.2 TSF	665	180	845	321	583	904	9,378
R&D	3,364 TSF	2,422	673	3,095	1,211	2,187	3,398	35,053
K-8 School	650 Students	104	13	117	26	46	72	806
Child Care	11 TSF	27	9	36	17	27	44	462
Church	25 TSF	13	4	17	7	13	20	203
Sub-Total		5,067	7,461	12,528	7,051	6,117	13,168	140,090
Additional Public Uses (Heritage Fields)								
K-8 School	1,350 Students	216	27	243	54	95	149	1,674
High School	2,600 Students	416	52	468	104	182	286	3,224
Park	100 Acre	21	7	28	13	22	35	359
Sub-Total		653	86	739	171	299	470	5,257
City/Other Property								
Warehousing	263 TSF	132	32	164	53	108	161	1,654
Government Facility	70.9 TSF	100	33	133	62	101	163	1,693
OCTA Facility/Terminal	176 TSF	95	23	118	37	77	114	1,179
Transportation Center	1,050 Spaces	210	53	263	84	168	252	2,625
Cultural/Institutional	300 TSF	372	135	507	267	399	666	6,924
Parking (OCGP)	5,037 Spaces	598	153	751	1,505	1,443	2,948	18,838
Agriculture	90 Acre	14	4	18	5	12	17	181
Habitat/Wildlife Corridor	1,180 Acre	12	12	24	12	12	24	201
Sub-Total		1,533	445	1,978	2,025	2,320	4,345	33,304
Total								
Total Trip Generation		7,253	7,992	15,245	9,247	8,736	17,983	178,651

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A8. Response to Comments from Michael J. Le Blanc, The Irvine Company, dated August 23, 2012.

The commentator in general raises issues related to the procedures and standards used in the preparation of the SSEIR. The City of Irvine, as lead agency for the project, has prepared the SSEIR using accepted and well established procedures for environmental analysis as expressed in the City and State CEQA Guidelines and consistent with numerous other projects within the City, as discussed in more detail in the following responses to comments.

A8-1 As discussed in Topical Response 2 in Chapter 2.0 of this FSSEIR the environmental baseline utilized by the DSSEIR analysis is proper.

A8-2 a. The option to convert up to 535,000 square feet of multiuse intensity to residential intensity is similar to other approved projects in the city with conversion features that could result in combinations of land use patterns (i.e. PA 40, PA 6, IBC, etc.). The Project Description clearly sets forth the base project, identifies that the base development could be modified to include the stated conversion, and specifies the exact conditions under which such a conversion could take place (i.e. part of the project's multi-use square footage would be converted to residential). As part of the conversion, the applicant must demonstrate that any conversion is within the approved project envelope and that the impacts are no greater than disclosed in the FSSEIR.

CEQA would not require that the SSEIR include a traffic analysis for the optional conversion of 535,000 square feet of non-residential uses to up to 889 additional dwelling units and 311 density bonus units. First, since the prior EIR analysis covered the various uses within the approved overall project "envelope", moving or converting the different uses should not (and does not) change the CEQA impacts. It is acknowledged that specific impacts within the Traffic Section of the SSEIR, may change but the zoning provides the mechanism for ensuring impacts are no greater than the impacts evaluated in this SSEIR. Figure 1 on the following page shows the TAZ modeling assumptions used in the analysis in the SSEIR consistent with Appendix 2.1 of the updated Traffic Study (Appendix D of this FSSEIR).

Second, it is a basic tenet of CEQA that an environmental analysis "should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." (CEQA Guidelines, 15004, subd. (b); *No Oil v. City of Los Angeles* (1974) 13 Cal.3d 68, 77, fn. 5.) "Where future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences." (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 395 quoting *Lake County Energy Council v. County of Lake* (1977) 70 Cal.App.3d 851, 854-855.)

The optional conversion is just that, optional. There is no certainty that it will ever occur or how much of it may occur, and, if it does occur, there is no certainty as to how or where it will occur. That is, the conversion allows for infinite permutations as

to the number, type, and location of residential development that could be constructed. Therefore, any specific analysis of the conversion would be speculation at this point until additional details of any future development are known. Further CEQA analysis may be required at such time as those details are known.

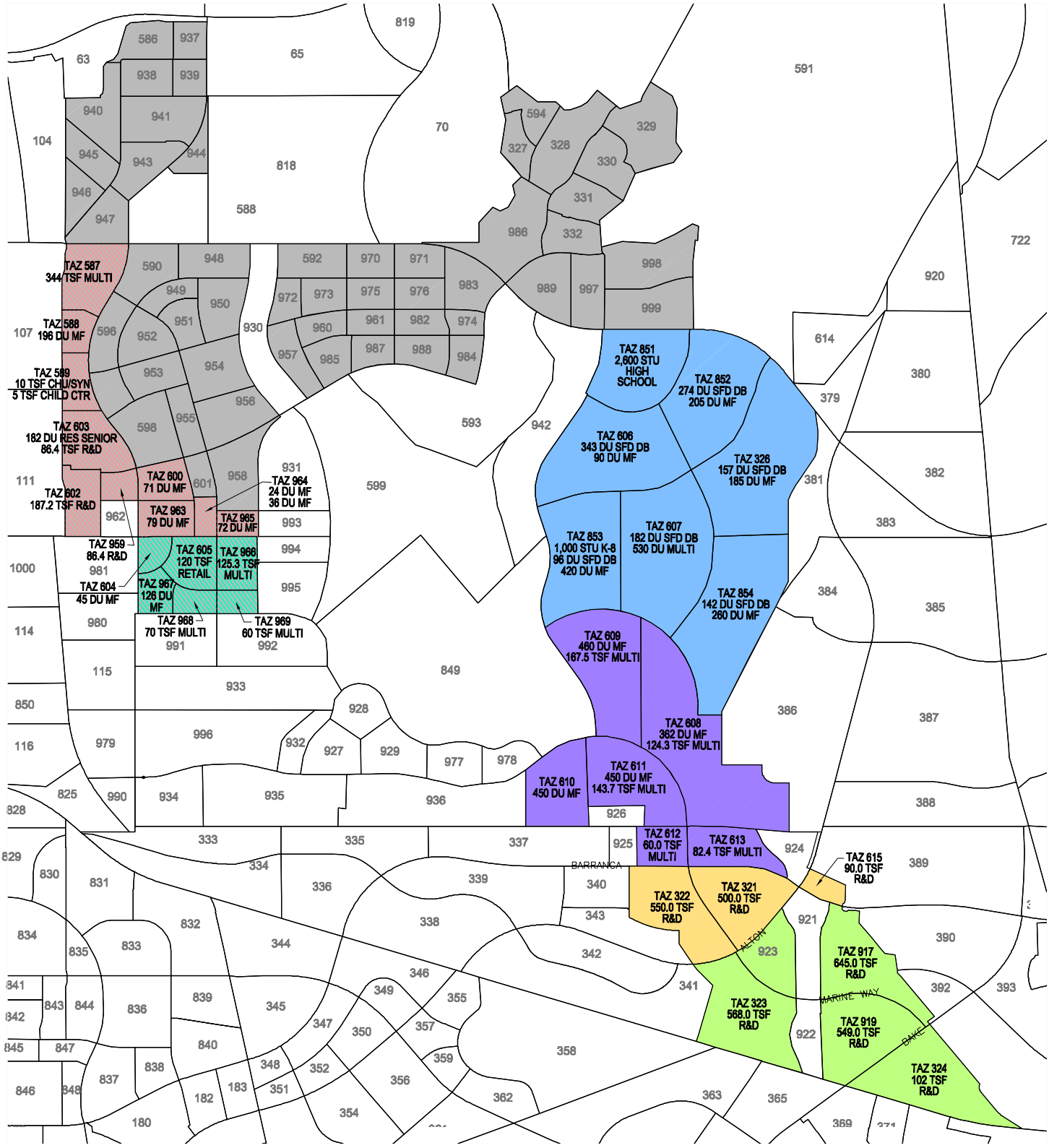
Further, the proposed zoning for the 2012 Modified Project specifically prohibits any conversion from occurring without additional environmental review if such conversion would result in any new or altered impacts that differ from those analyzed by the Traffic Impact Analysis. No changes to the SSEIR are necessary, as shown in Section 9-51-6(T) of the Draft Zone Change in Appendix B of this FSSEIR.

b. The proposed changes in the zoning are described in detail in Chapter 3, Project Description (pages 3-14 to 3-31) and in sufficient detail to evaluate their environmental impacts. Nothing in CEQA requires that the specific wording of the zoning text be determined at a preliminary stage. However, the specific Draft Zoning Code Amendments have now been formulated and are now included in Appendix B of this FSSEIR. They are consistent with description in the DSSEIR. In addition, see Topical 1, Project Description.

c. The funding of the Sports Park improvements is discussed in the SSEIR. Chapter 3, Project Description (p. 3-9) describes "advance funding for implementation of the facilities in the Sports Park as an objective of the project and sets forth the type (if not the specific numbers)" of such affiliate facilities, such as sports courts, tennis courts, soccer fields, and similar recreational facilities. The commitment to fund approved Great Park facilities is a feature of the 2012 Modified Project, intended to facilitate implementation of previously approved Great Park improvements, particularly given the loss of the redevelopment agency as a source of funding.

Contrary to the commentator's assertion, the Sports Park improvements are not mitigation measures intended or necessary to support the proposed development project. Rather, these facilities were previously approved as part of the Great Park Master Plan and could be built regardless of whether the 2012 Modified Project is approved or not The 2012 Modified Project simply provides an alternative funding source for the previously approved project to be implemented. Indeed, the ARDA already commits the City to construct the improvements in the Great Park, and the construction of those facilities has already been analyzed in the 2003 OCGP EIR, Addendum 4 and Addendum 8. Because the proposed park improvements are consistent with previous approvals, as detailed in Appendix 3.1 of the updated traffic study in the FSSEIR (Appendix D), the 2012 Modified Project applicant's commitment to fund facilities as a public benefit of the project does not have the potential to create additional environmental impacts.

GREAT PARK NEIGHBORHOODS
2012 DSSEIR TRAFFIC STUDY LAND USES
(INCLUDING HIGH SCHOOL & ADDITIONAL K-8)



DISTRICT 1 NORTH
DISTRICT 1 SOUTH
DISTRICT 2
DISTRICT 3
DISTRICT 5
DISTRICT 6
VESTED IN 2011

USES SHOWN REPRESENT ENTITLEMENT LAND USES AND DO NOT INCLUDE ANCILLARY USES

DRAFT - SEE TRAFFIC STUDY

Figure 1

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The implementation of such facilities is not "assumed to offset the increased population impacts on recreational facilities", as the commentator inaccurately asserts. As stated on page 5.11-10 of the DSSEIR, the 2012 Modified Project would only require 47.46 acres or 53.35 acres (with the optional conversion) of community parkland. As documented in the original development agreement between the City and the applicant in 2005, the project's original dedication of 1,117 acres to the Great Park in 2005 more than satisfied its community park requirements for the original project. The ARDA reaffirmed the applicant's satisfaction of community park facilities for the original project and all future development. Section 9.3.2 states:

> "9.3.2 Satisfaction of Community Park Obligations. Heritage Fields' conveyance of the Great Park Property to the City shall be deemed to satisfy any requirement imposed upon Heritage Fields for the dedication or development of community parks pursuant to the City's General Plan and Municipal Code in connection with the development of the Heritage Fields Property consistent with the ARDA Overlay Plan or any development density which the City may approve for the Heritage Fields Property in the future calculated at 2 acres/I,000 residential population or such other community parks requirement ratio the City may impose in the future."

The ARDA also specifies that the applicant will provide neighborhood parks at a rate of 3 acres per 1,000 residents for market-rate residential housing and at a rate of 2 acres per 1,000 residents for affordable housing. The applicant will provide neighborhood park land at the time that tract maps are implemented for the residential units not already mapped, as discussed in more detail on pages 5.11-9 to 5.11-11 of the DSSEIR. This commitment to additional or advanced funding for the Sports Park facilities is in addition to the project features themselves.

A8-3 The TCA Parcel need not be included within the NITM boundary as part of the proposed project. While it is proposed to be incorporated into the boundaries of Combined PA 51, it is not proposed for development intensity at this time and no NITM fees would be generated. If development is considered for the TCA Parcel at a future time, the City will make a determination as to whether it should be incorporated into the NITM boundary. No such revisions to the NITM boundary are anticipated at this time.

A8-4 a. The lack of zoning text in the DSSEIR does not preclude proper analysis of a variety of standards. The Project Description provides a detailed description of the proposed zoning (page 3-22 through 3-31 in the DSSEIR). In any event the specific Draft Zoning Code Amendments are included in Appendix B of this FSSEIR and the information is included in Topical 1, Project Description.

b. As to whether the Transit Vision Plan will be impacted by the 2012 Modified Project, current zoning provides a reliable mechanism to ensure that the Transit Vision Plan is updated to reflect the most recent land use approvals. Section 9-51-6(M) of the existing zoning states:

> Transit - Prior to the recordation of the first residential tract map in the District 1 North or South, 4, or 7 of the Great Park Neighborhoods development, the applicant shall prepare, fund, and work in cooperation with the City to develop a transit study, consistent with the City's 30-year Transit Vision Plan approved by the City Council in April 2009, ensuring that a route for the iShuttle is identified. At a minimum, the route should circulate along "O" Street and Irvine Boulevard and the developer shall identify strategic shuttle stop locations based upon developer's approved Master Plans. The applicant will continue to work cooperatively with the City, the Irvine Company, and other agencies to help identify and secure funding through OCTA.

As shown in Appendix B of this FSSEIR, the zoning for the 2012 Modified Project modifies the aforementioned language to include Marine Way, "LQ" Street and "B" Street and so the obligation is triggered upon the recordation of the first residential tract map, other than District 8.

c. The commentator states, "the DSSEIR has not discussed consistency implications of the Proposed Project relative to subdivision maps and other discretionary case applications…" The comment does not identify any particular inconsistency, but this response assumes that the commentator is referring to District 1. The aggregate intensities and land uses in District 1 (Districts 1 North and 1 South taken together) studied in the 2011 SEIR are substantially similar to those studied in the DSSEIR, and the number of residential units in District 1 remains the same as in the 2011 Approved Project and in the 2012 Modified Project. The Traffic Impact Analysis assumes that Institutional land uses will be replaced with Multi-Use land uses in District 1, consistent with the Zone Change, but the ADT for District 1 would be less than or equal to what was studied for the 2011 Approved Project and would continue to be subject to the overall trip budget. The apparent concern is that some of the VTTM development might not be consistent with the uses assumed in the Traffic Impact Analysis for the 2012 Modified Project. To the extent that any future development for which discretionary approvals in District 1 North or District 1 South may be different, the applicant must demonstrate that the discretionary approvals and the associated traffic impacts are consistent with and the Traffic Impact Analysis, and supporting technical analyses are consistent with the requirements of the NITM Program.

The commentator refers to Comment A8-22, which asks for clarification regarding the "plan to plan" and "plan to ground" Traffic Impact Analysis methodology. As noted on page 6-1 of the Traffic Impact Analysis, the 2015 "without project" scenario assumes existing occupied land uses in District 1 for Options 1 and 2. As noted on page 7-1 of the Traffic Impact Analysis, the potential traffic impacts of the 2012 Modified Project are assessed based on a comparison of the 2015, 2030 and post 2030 conditions for the 2011 Approved Project and 2012 Modified Project, including the land use changes proposed in Options 1 and 2. Pursuant to the requirements of NITM, any new or revised map will require a NITM map level traffic analysis.

d. A potential future amendment of the OCGP Master Plan is not a part of the 2012 Modified Project. As Great Park improvements are implemented, future amendments may be required for development of the Great Park but those are outside this scope of the 2012 Modified Project and will be analyzed as needed.

A8-5 The commentator raises a number of issues related to hydrology and water quality. A summary of the history of the Hydrology and Water Quality approvals has been added to Section 5.6, *Hydrology and Water Quality*.

a. The commentator states that the SSEIR should include additional analysis of hydrology and water quality issues for the Relocated Wildlife Corridor Feature. Topical Response 4, Wildlife Corridor contains an analysis of the wildlife corridor. Specifically with respect to drainage, Segments 2 and 3 of the Relocated Wildlife Corridor Feature continue to have the same purpose, intent, size, and connectivity as the wildlife corridor feature that was analyzed as part of the 2003 OCGP EIR. Segments 1, 4 and 5 of the Relocated Wildlife Corridor Feature remain the same in the original wildlife corridor feature as analyzed in the 2011 Certified EIR and as depicted in the existing SAMP. Segment 2 and 3 of the Relocated Wildlife Corridor Feature are completely contained within the same Borrego watershed as per the approved Master Plan of Drainage. The 2012 General Plan Amendment and Zone Change – Hydrology Study (the "Hydrology Study") compares the 2012 Modified Project to that of the approved Amendment to the Master Plan of Drainage. More specifically, Figure 3.1 of the Hydrology Study shows that the 2012 Modified Project's watershed boundaries are the same as the approved Master Plan. Figure 3.2 from the Hydrology Study depicts the revised land uses, along with Segment 2 and 3 of the Relocated Wildlife Corridor Feature. The 2012 Modified Project, including Segments 2 and 3 of the Relocated Wildlife Corridor Feature, were analyzed in the Hydrology Study that determined peak discharge rates at three key offsite locations (consistent with the approved Master Plans). Table 4.1 from the Hydrology Study (see Appendix E of the DSSEIR) summarizes the peak discharge rates, tributary area and Average A_p at the three key offsite locations. The difference between the 2012 Modified Project and the approved Master Plan for those locations is less than one percent for each location. This is an insignificant difference across a watershed of approximately 4,000 acres.

The comment letter is unclear as to the specific water quality management plan (WQMP) that the comment letter is referring to. A Concept Project Level WQMP ("CPWQMP"), which was approved by the City in 2009 and updated in 2011, established the framework that future project level WQMPs will follow. The impacts on water quality resulting from the 2012 Modified Project are discussed in the Project Water Quality Technical Report – Great Park Neighborhoods TTOD prepared by ENGEO, Inc. and dated June 22, 2012 (the "Water Quality Report") (see Appendix F of the DSSEIR) and is compared to the CPWQMP (2011). Segments 2 and 3 of the Relocated Wildlife Corridor Feature are part of this analysis. Since the Relocated Wildlife Corridor Feature is within the same watershed and has the same acreage, there is no impact to the approved CPWQMP (2011).

b. The commentator requests additional hydrology exhibits. Both the Hydrology Study and the Water Quality Report contain a series of figures, exhibits and tables that compares the 2012 Modified Project to the approved Master Plans.

More specifically, Figure 3.1 from the Hydrology Study shows the watershed boundaries and major drainage channels and compares the peak discharge rates with those established in the approved Master Plan. In that same report, Figure 3.2 and Figure 1-3 depict the land uses for the 2012 Modified Project and the land uses from the approved Master Plan for comparison purposes. Further, Exhibit A of the Hydrology Study identifies sub-areas, drainage patterns, and discharge locations and rates. All figures, Exhibit A, and the methodology included in the Hydrology Study are used for a comparison to the approved Master Plan, and those results are summarized in section 4 of the Hydrology Study (see Appendix E of the DSSEIR). Major Water Quality BMP's are listed in Tables 2.1.4-2 and 2.1.4-3 of the Water Quality Report (see Appendix F of the DSSEIR) and a full analysis is included therein.

c. The commentator also asks why the San Diego Creek Watershed Master Plan of Drainage was not updated as part of the 2012 Modified Project. The commentator is referred to the responses to the previous paragraphs in this response. The Hydrology Study determined that impacts to the approved Master Plan of Drainage are not significant. The watershed limits along with drainage patterns and peak runoff rates are consistent with the values established in the approved Master Plan. Tentative Map level preliminary grading and drainage systems will be provided at a future date. At that time discharge patterns and rates will be verified by the City to determine that they are still consistent with the approved Master Plan of Drainage.

The commentator also asks why updates to the existing WQMP and to the NTS section of the SAMP were not included in the DSSEIR. The CWQMP was prepared jointly by the applicant, the City and the Orange County Great Park Corporation. The intent of the CWQMP is to establish the regulatory framework and template for detailed project level WQMP's to follow in the future. The CWQMP is not intended to discourage innovation due to advancement in BMP design, therefore, future more detailed WQMPs will be provided at the appropriate stages of development design. NTS facilities were identified in the CWQMP, the IRWD NTS Master Plan and the PA 30 and 51 SAMP, and all of those documents show the location of NTS facilities based on the technical data available at the time of adoption. Therefore, revisions to these documents are not required for the SSEIR. No changes to the SSEIR are necessary.

A8-6 The commentator asks for additional noise analysis related to freeway traffic, although the comment does not suggest any additional impacts. Table 1 in Appendix F of this FSSEIR provides a summary of the daily ADT/link volumes for the I-5, I-405, SR-133, SR-241, and SR-261 mainline segments for long-range Post-2030 scenarios included in the Traffic Impact Analysis. The 2012 Modified Project daily volume changes range from -.5% to +1.1% on the I-5 Freeway, -.2% to +1.4% on the I-405 Freeway, -.2% to +1.9% on SR-133, -.4% to +1.1% on SR-241, and 0.0% to +2.6% on SR-261, in comparison to 2011 Approved Project baseline conditions. As

discussed in Topical Response (Baseline) in Chapter 2.0 of this FSSEIR, the proper baseline was used for the noise analysis.

A significant off-site traffic noise impact would occur if the 2012 Modified Project were to create a noise level increase in the area adjacent to the roadway segment greater than 1.5 dBA within residential areas and if the resulting noise level exceeds the 65 dBA CNEL exterior noise standard. Any residence, hospital, school, hotel, resort, library or similar facility where quiet is an important attribute of the environment is considered a noise sensitive land use.

Table 2 in Appendix F of this FSSEIR provides a summary of the off-site traffic noise level impacts for the 2012 Modified Project Option 1. Table 3 in Appendix F of this FSSEIR presents the off-site traffic noise level impacts for the 2012 Modified Project Option 2. Tables 2 and 3 demonstrate that the 2012 Modified Project will increase the off-site traffic noise levels only up to 0.1 dBA CNEL on the 29 off-site roadway segments when compared to the 2011 Approved Project.

The project-related traffic noise increases generated by the 2012 Modified Project are less than 1.5 dBA and thus do not exceed the significance thresholds. Consequently, the 2012 Modified Project's traffic noise impacts for the I-5, I-405, SR-133, SR-241, and SR-261 mainline segments will be less than significant. This analysis shows that the 2012 Modified Project will not create a substantial permanent increase in traffic-related noise levels or expose persons to noise levels in excess of the exterior noise level standards established in the General Plan Noise Element. No changes to the SSEIR are necessary.

A8-7 The commentator states that the DSSEIR's analysis is incomplete and that the SAMP should have been updated as part of the 2012 Modified Project. As noted in Response A8-5, the SAMP cannot be updated at this time because no vesting tentative maps are proposed as part of the 2012 Modified Project. Per previous discussions with IRWD about the 2012 Modified Project, when layouts for backbone streets and preliminary utility layouts are available, the SAMP for Combined PA 51 will be updated, if necessary.

The commentator states that additional analysis should be done with respect to potential impacts on IRWD's onsite and off-site water and sewer collection facilities. The Sewer and Water Master Plan Study included as Appendix J to the DSSEIR concluded that there would be no noteworthy changes to the sewer requirements affecting off-site facilities for the 2012 Modified Project.

A8-8 The commentator requests that PPP 10-10, relating to library mitigation, be modified. With respect to mitigation of library impacts, the City has not imposed a fee, but it may do so in the future. However, the City as lead agency, in its discretion, determines that the donation of land for a 39,000 square foot library (that is part of the Orange County Great Park Master Plan) by the applicant is sufficient mitigation in lieu of potential future library fees for impacts to libraries for the 2011 Approved Project and the 2012 Modified Project. Physical impacts related to construction of a potential library have been previously addressed in the 2011 Certified EIR.

A8-9 The commentator states that Page 5.11-6 should "note that [the private parks] were designed and built to serve residents within the neighborhoods developed per the city park code and Quimby Act dedication requirements" and that "it should not be presumed" that those parks would meet the needs of the 2012 Modified Project. The discussion on page 5.11-6 of the DSSEIR does not state that the HOA parks will accommodate the population generated by the 2012 Modified Project; rather it simply lists the existing parks in Irvine in accordance with CEQA. The 2012 Modified Project will comply with the ARDA regarding dedication of parkland and applicable City Municipal Code provisions related to park dedication at the time of future subdivision. No changes to the SSEIR are necessary.

A8-10 The commentator raises concerns about potential interim impacts on the existing parks. As noted on page 5.11-10 of the DSSEIR, there may be short term increases in users at adjacent parks prior to the construction of planned neighborhood parks. However, as noted those impacts are not significant. As suggested by commentator, the City has the discretion to require phasing of neighborhood parks. The City typically exercises this discretion as part of the approval process for vesting tentative tract maps, not for General Plan Amendments and Zone Changes. The conditions of approval for subdivision maps set forth the phasing requirement for parks, to ensure that they are provided as residential units are developed and the demand is created. Neighborhood parks necessary to serve the 2012 Modified Project will be phased in the same manner as the 2011 Approved Project and other projects completed and projects under construction in the City. As commentator notes, the SSEIR already addresses potential physical environmental impacts to recreation.

A8-11 The commentator asks for the rationale for applicant's request regarding the use of LOS "E". The adopted General Plan and the 2011 Approved Project already allow for the consideration of an LOS E threshold at intersections in PA 30. Revisions are necessary to the General Plan to reflect combining PA 30 into PA 51 and to allow for this consideration adjacent to higher density residential developments similar to the IBC and Irvine Spectrum areas. The 2012 Modified Project also proposes to expand the ability to apply LOS “E” to the area just north of the Irvine Station between the rail line and Marine Way. Due to the planned higher density transit oriented development that will be served by the nearby Irvine Station the expansion of the existing policy is appropriate.. Overall, the revisions would allow for a more consistent application of the policy for higher density in this area and transit oriented development similar to the IBC and Spectrum, where the LOS “E” threshold is allowed.

Moreover, the Traffic Impact Analysis notes that, consistent with existing policies, LOS “E” would only be considered acceptable at selected locations subject to participation/funding to an upgraded traffic signal system as defined in the Traffic Management Systems Operations Study (TMSOS) and/or an Advance Traffic Management System (ATMS), which may be in place at the time of processing of the individual traffic studies. As required by City policy, the applicant will be required to pay appropriate TMSOS and/or ATMS fees. The City, in conjunction with specific traffic studies, shall determine the level of participation/funding using criteria and a process developed concurrently. The Traffic Impact Analysis does not rely upon this

application of LOS "E" acceptability or any other change in LOS standards during the course of evaluating traffic impacts associated with the 2012 Modified Project. All identified project mitigation is based on existing General Plan LOS 'D" thresholds, unless already identified in the existing General Plan as LOS "E" acceptable. The traffic analysis did identify as an option, LOS "E" acceptance, however this is not being considered for the project.

For the reasons stated herein, the City has concluded that the traffic analysis prepared for the 2012 Modified Project adequately addresses the potential traffic impacts of the project.

A8-12 The commentator asks about the LOS E for the 2012 Modified Project and suggests that the City should act to change previous approvals for the commentator's project. See Response A8-11 above. The 2012 Modified Project does not include a request for an LOS "E" designation. Any modifications to commentator's previous approvals are beyond the scope of this approval, and should be discussed with the City independent of this action. No changes to the SSEIR are necessary.

A8-13 The commentator asks about the trip cap as it relates to the optional conversion. The zoning for Combined PA 51 includes a trip budget (exclusive of trips associated with the density bonus units, which under State law are not counted for trip purposes as well as schools and private neighborhood parks; however these trips are analyzed with respect to traffic impacts), and that trip budget is further documented in the ARDA. The established trip budget used in the Traffic Impact Analysis is based on ITAM trip generation rates. As noted in Chapter 3 of the DSSEIR, Project Description, the optional conversion rates are exclusive of trips associated with the density bonus units and do not exceed the trip budget for the 2012 Modified Project in general. The application of socioeconomic trip generation to establish the trip budget in this Planning Area is consistent with the terms of the ARDA and the zoning ordinance for PAs 30 and 51, the latter of which established the Planning Areas trip budgets based on socioeconomic trip generation. The process applied in PA 6 was one accepted approach, but in that case the conversion was confined to a specific area and the specificity of the future land use mix to be analyzed was more certain. Another approach was applied in PA 40. No changes to the SSEIR are necessary.

The commentator also correctly states that the air quality and school impact assessments analyze the optional conversion. The commentator further claims that the lack of a similar analysis for traffic impact creates an inconsistency in the SSEIR. Potential school impacts and air quality impacts can be analyzed on a macro programmatic basis, regardless of the land use mix that is ultimately constructed for the 2012 Modified Project. Traffic cannot be analyzed in this manner.

Further, the SSEIR assumed the maximum amount of impacts that could occur for the purposes of air quality and schools from the conversion, such that the severity of these impacts would include the potential impacts from the conversion, whether it actually occurs or not. However, the traffic impacts would depend on the location and amount of the specific uses but the impacts will be within the levels evaluated. The commentator is also referred to Responses A8-2, A10-2a and A10-4], which

discusses that the optional conversion is analyzed in the SSEIR, with the exception of traffic and describes a process for traffic analysis in the proposed zoning. No changes to the SSEIR are necessary.

A8-14 The commentator claims that TRAN-1 would not require the property owner to pay annual dues for Spectrumotion. TRAN-1 actually states that "the landowner or subsequent project applicant shall either (i) apply for annexation of any areas within the final map to the Irvine Spectrum Transportation Management Association (TMA) ("Spectrumotion") in accordance with Article X of the recorded Declaration of Covenants, Conditions and Restrictions (CC&Rs) for the Irvine Spectrum TMA, including any supplementary or amended CC&Rs, to reduce traffic, air quality and noise impacts or (ii) develop and implement a similar transportation management plan containing the elements and meeting the criteria described below as approved by the Director of Public Works. " If the landowner or subsequent project applicant were to be annexed into Spectrumotion, then the landowner or subsequent project applicant would have to comply with all of the rules and regulations set forth in the CC&Rs, including regular payment of dues. Moreover, TRAN-1 has remained substantially the same since 2003. Further, TRAN-1 provides a contingency for an alternative to annexation into Spectrumotion.

A8-15 The commentator asks about the status of the applicant's reallocation study related to the 2011 SEIR Project and whether another fee reallocation study will be submitted for the 2012 Modified Project. The City has recently approved the reallocation study. The commentator also asks the City to affirm certain reimbursements under NITM. However, the commentator's request relates to the adopted provisions of NITM, something which is beyond the scope of the 2012 Modified Project. Any future reimbursement request related to NITM fees or adjustments of such fees as a result of findings related to pending and subsequent NITM Fee Reallocation Studies may be further discussed by the NITM Advisory Committee. In compliance with NITM, the applicant will be required to satisfy its obligation for the submittal of future fee reallocation studies, as necessary. CEQA requires analysis only of physical environmental impacts.

A8-16 The commentator asks about the text changes for Mitigation Measure TRAN 4. Mitigation Measure TRAN 4 has been modified to delete the term "fair share", which was a typographical error. In any case, the applicant has paid the applicable fee associated with improvements identified in Mitigation Measure TRAN 4 and in the VTTM 17008 conditions of approval for the Jeffrey Road /Roosevelt intersection. It should be noted that the language in the conditions of approval for 2nd AVTTM 17008 does not reference the 2011 Approved Project rather they reference final maps in each Development District. The VTTM is not being modified and the conditions of approval are still applicable.

A8-17 a. The project is responsible, to the level identified in the EIR, for its mitigation improvements. EIR mitigation responsibility is not removed based on the finding of a subsequent map level analysis. The findings of each subsequent map level analysis do not eliminate the project’s requirement to construct the improvements. TRAN 5 and TRAN 7 require that prior to the approval of the last map the project construct,

pay its fair share or enter into agreement to pay its share of the improvements. The 2011 Traffic Study's cumulative analysis anticipated that future VTTM studies would incorporate the impacts of any previously processed VTTMs. The landowner or subsequent property owner is not required to pay for mitigation that would be above and beyond the impacts that are caused by its project.

b. The commentator asks that TRAN 5 and TRAN 7 be modified to delete the language regarding fair share. The mitigation measures already require the landowner or subsequent landowner to pay the Modified Project's fair share, construct or enter into agreement to establish the Modified Project's fair share pursuant to existing law and the ARDA. The responsibility shall be consistent with the findings of the traffic impact analysis. The Modified Project's fair share could be up to and including 100%. Consistent with past practice, the required map level traffic analysis will identify that map's share of the improvements identified in the SSEIR based on the traffic associated with that map. No changes to the SSEIR are necessary.

A8-18 The commentator asks that the timing requirement for TRAN 9 and TRAN 10 be changed to an earlier date and asks whether the final map will be responsible for "the fair share obligation of the entire GPA Project." Although, it is possible that the last final map could be responsible for the entire fair share obligation, the proposed change is inappropriate in this case because the fair share improvements referred to in TRAN 9 and TRAN 10 relate to impacts that would occur after the buildout (post 2030) of the existing approved VTTMs. Thus, there is no need to condition these mitigation measures on the initial development in the first final maps.

A8-19 The commentator states that OCTA/Caltrans have recently approved a PSR for the widening of 1-5 between I-405 and SR55. Through coordination with Caltrans to satisfy requirements of TRAN 9 and 10, a fair share agreement may be based on the improvements identified in the referenced PSR or another agreed upon Caltrans improvement. The comment is noted, though the PSR does not require any changes to the Traffic Impact Analysis included in the DSSEIR.

A8-20 The commentator asks about the proper baseline for the SSEIR. As discussed in Topical Response 2 in Chapter 2.0 of this FSSEIR, the SSEIR used the proper baseline. With respect to traffic issues, a traffic summary has been added to Section 5.12, Transportation and Traffic (see Chapter 4.0 of this FSSEIR). With respect to trip generation increases, the commentator is referred to Response A15-46a.

A8-21 The commentator asserts that the Traffic Impact Analysis and DSSEIR do not document changes in directionality. Tables 1 to 4 (see Appendix E of this FSSEIR) are provided as requested and document the changes in directionality of AM and PM peak hour trip generation. As discussed in Response A8-20, the improved land use balance of the 2012 Modified Project results in changes in directionality in the AM and PM peak hours that are beneficial not adverse. The 2003 OCGP EIR project had 79.4% more trips inbound than outbound during the AM peak hour, resulting in more commuters and visitors traveling from outside the area and into the combined PA 51 with less opportunity for local trip matching. A similar but less severe imbalance occurs during the PM peak hour with the 2003 OCGP EIR project, by way of 30.3%

more trips inbound than outbound. The 2012 Modified Project further balances the mix of land uses on-site, resulting in nearly the same amount of inbound and outbound activity during both the AM and PM peak hours. No changes to the SSEIR are necessary.

A8-22 The commentator states that the Project "would result in significant land use changes within the VTTMs that have been approved for Districts 1 North and 1 South". As discussed in Response A8-4c, this statement is incorrect. Any new map will require compliance with the NITM Program and the year-2015 GPA/ZC traffic analysis is not intended to serve that purpose.

A8-23 The commentator asks for an explanation of the baseline for the Traffic Impact Analysis. The commentator is referred to Topical Response 2, Baseline, in Chapter 2.0 of this FSSEIR, which provides a more detailed analysis on the Baseline issues for 2012 Modified Project.

A8-24 The commentator states that the trip generation table in the SSEIR fails to include the trip generation of the entire project. Table 3-8 (see Appendix D of this FSSEIR) of the Traffic Impact Analysis has been revised to include both the "Heritage Fields" and "Other Public Uses" categories shown in Tables 3-1 through 3-7 of the Traffic Impact Analysis,

A8-25 The commentator asks whether the additional 402 parking spaces within the Great Park have been analyzed in a prior environmental document, and asks how cumulative impacts can be assessed if "the trip rates for the OCGP cannot be established…" Table 2-2 of the Traffic Impact Analysis (see Appendix D of the FSSEIR) provides a summary of Interim Year (2015) land use assumptions, including an increase of 402 parking spaces over previous Interim Year assumptions to account for the approved Western Sector Development Plan. The Western Sector Development Plan updated the phasing assumptions for the Orange County Great Park (OCGP) Master Plan. EIR Addendum 8, which was the environmental clearance for the Western Sector Plan, analyzed the additional parking spaces based on this new phasing. Traffic impacts of the Western Sector Plan have been addressed in the "Orange County Great Park Western Sector Park Development Plan Phase 1 Traffic Study" (LSA Associates, Inc., August 2011) that was prepared for Addendum 8. For traffic modeling purposes, additional Interim Year parking spaces are used as an estimator for traffic activity associated with Great Park land uses, including land uses evaluated for the Western Sector Plan. The Western Sector Park Development Plan was approved by the Great Park Board and the Irvine City Council on October 20, 2011. The Minor Modification was approved by the Director of Community Development on October 19, 2011 and the Park Design was approved on October 20, 2011. The Great Park overall trip cap remains unchanged in the DSSEIR. Footnote 2 clarifies that the 2012 Modified Project does not preclude any future revisions to the OCGP Master Plan and does not include changes to the amount of traffic anticipated by Addendum 8. The associated Great Park trip generation is included in this analysis and assumed in the Traffic Impact Assessment.

A8-26 The Great Park Master Plan is not being updated as part of the 2012 Modified Project since there are no changes being proposed to the Master Plan as part of the 2012 Modified Project. See Appendix 3.1 of the updated traffic study (Appendix D of this FSSEIR) for timing assumptions and Response A8-2c.

The commentator states that there may be an accelerated Great Park improvements schedule. Although various concept plans for Sports Park improvements have been considered, the parties have not determined a final plan and have not agreed to implement anything that would be contrary to the circulation and land use plans already approved or proposed as part of the 2012 Modified Project. If alternate phasing is part of future Sports Park improvements, further evaluation may be required. See Appendix 3.1 of the updated traffic study (Appendix D of this FSSEIR) for Sports Park improvements assumed in the 2015 interim year analysis.

A8-27 The commentator states that inconsistent data was used between the 2011 Approved Plan and the 2012 Modified Project related to trip generation, and expresses concern that a uniform basis be applied to trip budget limitations and NITM fair share funding requirement. Traffic studies prepared for both the 2011 Approved Plan and the 2012 Modified Project, as well as all comprehensive NITM studies, use ITAM to analyze freeway mainline segments (peak hours), arterial links (daily and peak hours), intersections (ICUs), and ramps (peak hours), to identify off-site impacts and apply mitigation. In addition, ITAM based land use trip rates are shown in the 2012 Modified Project Traffic Impact Analysis because they provide the uniform basis for the daily trip caps which apply to Planning Area 51. Therefore, there is no inconsistency in the way that the 2012 Modified Project traffic analysis was prepared and the impacts assessed. ITAM is uniformly used for analysis of trip generation, distribution and assignment of peak hour traffic to determine project traffic impacts by the City.

ITAM peak hour and daily trip rates are not necessarily identical to land use based rates from ITE and other sources. The ITAM rates reflect travel activity throughout a broad study area based upon various trip purposes, while ITE rates reflect more the numbers of vehicles arriving or departing from the driveways or local streets serving individual types and sizes of land uses. ITAM trip rates are calibrated for consistency with OCTAM and subregional travel patterns, while ITE rates typically represent national averages.

While City of Irvine traffic studies often provide ITE based trip generation summaries in the report text, all analysis work using ITAM is actually based upon ITAM trip rates. For the 2012 Modified Project traffic study report, ITAM based trip generation summaries are provided to improve consistency with analysis procedures, analysis results and discussions of trip budgets which are related to the Project. For comparison purposes, as requested, Table 4 of Appendix E (Urban Crossroads Supplemental Traffic Information) summarizes the land use based trip rates which are appropriate for the 2012 Modified Project, based upon ITE as well as other sources which are consistent with City of Irvine traffic studies in the NITM area.

A8-28 The commentator states that the list of pending projects should include pending general plan amendments within the City of Lake Forest. The projects that were included in the Lake Forest Opportunities Study are already included in both LFTAM and ITAM. In addition, two recent General Plan Amendment Applications have been filed with the City of Lake Forest, the Paseos at Foothill Ranch project and the Foothill Ranch Towne Center project (the "Lake Forest Projects"). Intersection capacity utilization analysis was performed for 2015, 2030 and Post 2030 with pending projects, with the Lake Forest Projects. Table 18 (see Appendix E of this FSSEIR) summarizes the results of that analysis. No 2012 Modified Project impacts would occur with the additional peak hour traffic when the Lake Forest Projects are taken into account in the pending projects analysis. The commentator is also referred to Response A10-3 for additional information. No changes are necessary to the SSEIR.

A8-29 The commentator raises an issue regarding partially funded NITM improvements which are assumed to be in place in the post 2030 Traffic Impact Analysis scenarios. For General Plan buildout conditions, the City's ITAM database includes partially funded NITM improvements at study area intersections. The attached Table 19 (see Appendix E of this FSSEIR) presents an assessment of "without project" and "with project" conditions, without the partially funded NITM improvements. This assessment concludes that no additional traffic impacts would occur with the 2012 Modified Project, even without the partially funded NITM improvements at these locations. No changes to the SSEIR are necessary.

A8-30 a. The commentator states that alternative mitigation measures should be considered for Browning Avenue/Irvine Boulevard intersection in the event that the City of Tustin does not accept ATMS as a mitigation measure. Timing and coordination of the ATMS improvement at Browning Avenue/Irvine Boulevard will be coordinated with the City of Tustin. The City of Tustin has accepted ATMS as appropriate mitigation for other projects. The SSEIR provides an analysis of potential environmental impacts, which is appropriate for the level of requested entitlement, i.e., general plan amendment and zone change. No changes to the SSEIR are necessary.

b. The commentator questions the application of ATMS and states that a southbound de facto right turn lane is feasible at Jeffrey Road/Barranca Parkway intersection and that a mitigation measure should be added to fund the unfunded portion of this improvement. ATMS has already been accepted at this location; therefore an alternate improvement was not requested or required.

c. The commentator states that improvements at the Bake Parkway/Rockfield Boulevard intersection should be advanced. Timing and coordination of the 2012 Modified Project's conversion of a westbound through lane to a third left turn lane at the Bake Parkway/Rockfield Boulevard intersection will be coordinated with the City of Lake Forest. TRAN 7 has been revised to reflect the project responsibility and mitigation at this location.

d. The commentator states that mitigation measure language should be included for the Sand Canyon/Oak Canyon that is similar to the mitigation measure language for PAs 40/12. As noted in TRAN 5 of the SSEIR, the 2012 Modified Project's impact at this location is mitigated by a fair share contribution toward a previously identified and partially funded improvement.

e. The commentator questions the feasibility of the proposed design of the mitigation measure at the Culver Drive/ Bryan Avenue intersection. The City has determined that the mitigation is feasible and can be accommodated at this location within the physical constraints noted by the commentator. The SSEIR provides an analysis of potential environmental impacts, which is appropriate for the level of requested entitlement, i.e., general plan amendment and zone change. Detailed design concepts for this improvement will be prepared at the time a tentative level traffic study identifies a project impact at this location. Though additional right-of-way may be required and utility relocation needed, no significant impacts to adjacent structures would occur.

f. The commentator states that the impacts of the proposed mitigation for the Sand Canyon/I-5 NB off-ramp should be analyzed (Refer to A8-31a). At the intersection of Sand Canyon Avenue and the I-5 Northbound Ramp/Marine Way, the 2030 mitigation consists of a standard (exclusive) northbound right turn lane with right turn overlap signal operation, in response to increased peak hour volumes. The addition of a separate northbound right turn lane with right turn overlap signal operation has been evaluated using both ICU and HCM methodologies in the DSSEIR Traffic Impact Analysis, and this improvement has been shown to mitigate the project impact. The traffic analysis did identify LOS "E" acceptance as an alternative, however the 2012 Modified Project does not include a request for an LOS "E" designation and the LOS "D" improvement is the identified mitigation in TRAN 5 and TRAN 7.

A8-31 a. The commentator asks for a design concept that shows how the improvement at the Jeffrey Road/Roosevelt intersection will be constructed. The City has determined that the improvements are conceptually feasible and can be accommodated at this location. The SSEIR provides an analysis of potential environmental impacts at a level of detail that is appropriate for the level of requested entitlement, i.e., general plan amendment and zone change. Detailed design concepts for this improvement will be prepared along with any related CEQA analysis that may be required at the time a tentative level traffic study identifies a project impact at this location or as otherwise required in mitigation measures TRAN 5 and TRAN 7. Though additional right-of-way may be required, no significant impacts to adjacent structures would occur.

b. The commentator asks for a design concept that shows how the improvement at the Jeffrey Road/Alton Parkway intersection will be constructed and asks whether this improvement would replace the NITM improvement. Mitigation measures TRAN 5 and TRAN 7 require construction of the ultimate eastbound lane geometry of two left turn lanes, two through lanes, and one right turn lane. This requirement is independent of the condition that exists at the time of implementation. Based on the

concept plan that was prepared for City staff review that identifies these improvements, the City has determined that the improvements are feasible at this location. For post 2030 conditions, the project mitigation is conversion of the shared through/right turn lane (previously constructed per NITM) to a right turn lane. At this time, the project is not proposing to modify the identified NITM improvement at this location; however should that be proposed, the NITM Advisory Committee would require consultation. No changes to the SSEIR are necessary.

A8-32 The commentator states that the DSSEIR does not address the changes to the southbound right turn lane at the Bake Parkway/ Marine Way intersection. At the intersection of Bake Parkway and Marine Way, the ICU analyses for future year scenarios with the 2012 Modified Project in the Traffic Impact Analysis show LOS B and C at this intersection with the addition of a fifth southbound through/shared right turn lane. This improvement (addition of a fifth southbound through/shared right turn lane) is already programmed for this intersection location based upon the City of Irvine preferred alternative evaluated in the "Bake Parkway – Marine Way Circulation System Amendment Traffic Study" (Parsons Brinckerhoff, June 2008). at the time of consideration of tract maps for 2012 Modified Project, and particularly portions of the 2012 Modified Project located near this intersection, the overall performance of this intersection will continue to be evaluated. The commentator correctly notes that the de facto right turn lane is not in the ICU tables, however the inclusion of the de facto right turn lane will only further improve the ICU, not degrade it.

A8-33 The commentator asks whether the 2012 Modified Project would result in changes in the assumed roadway system. Although various alternative concept plans have been considered, circulation assumptions for Option 2 remain consistent with the circulation assumptions included in the SSEIR traffic forecasts. Any future changes to the assumed roadway system would require further evaluation at that time. No changes to the SSEIR are necessary.

A8-34 The commentator states that the Traffic Impact Analysis should include a Post 2030 analysis for intersections within the City of Lake Forest. Since the City of Lake Forest does not maintain a Post 2030 version of LFTM, Year 2030 LFTM forecasts are used as a baseline for the Post 2030 analysis of Lake Forest intersections. No changes to the SSEIR are necessary

A8-35 The commentator states that no existing or projected ADT volumes are provided for I-5, I-405, SR 133 north of I-405, SR 241 or SR 261. Applicable exhibits have been updated in the Traffic Impact Analysis (see Appendix D of this FSSEIR) depict daily ADT/link volumes for the I-5, I-405, SR-133, SR-241, and SR-261 mainline segments for 2015, 2030, and Post-2030 scenarios included in the Traffic Impact Analysis.

The commentator is referred to Response A8-6 with respect to noise.

A8-36 The commentator states that if an alternative ramp configuration for the Sand Canyon/I-5 ramp intersection is pursued, that an improvement should be added for

mitigation purposes. The alternative configuration for Sand Canyon /I-5 ramp intersection is provided for informational purposes only and is not being pursued further at this time. Impacts and any resulting mitigation improvements at ramp intersections are identified and mitigated based on the ICU methodology. Based on this significance threshold, no impacts to this ramp have been identified as part of the 2012 Modified Project. The City will continue to coordinate with Caltrans on the operation of all ramp intersections.

A8-37 The commentator expresses concerns regarding administration of pending mitigation measures and hypothetical scenarios where one or more of the pending projects may not ultimately be approved. The SSEIR mitigation measures are based on the assumption that the pending projects will not be approved and the 2012 Modified Project is responsible for mitigating any impacts resulting from the 2012 Modified Project in that case. If all of the pending projects are approved, the alternate list of mitigation measures identified in the pending projects analysis would be the mitigation responsibility of the 2012 Modified Project. In the case of this pending project analysis, all of the assumed pending projects have since been approved. Given that, the example provided is not a likely scenario at this time, although if it was the case, the City would require appropriate assessment of improvement obligations through subsequent mapping processes.

A8-38 The commentator asks why the Traffic Impact Analysis assumed 500,000 square feet of non-residential instead of 790 residential units for PA 6. Although the City may have approved an optional conversion from the approved non-residential entitlement to residential entitlement for PA 6, the zoning still permits the non-residential uses, and, therefore, the baseline is correct. The ITAM and City's land use database has been maintained with the non-residential use, including a similar assumption for PA 40, until any such converted uses are implemented or applications approved.

A8-39 The commentator requests that a design be provided for the geometrics of the southbound free right at the Trabuco Road/"O" Street intersection. The ICU analysis without a free right will comply with the LOS standard. In addition, at the discretion of the applicant, a free right turn lane option may be employed in lieu of a dedicated right turn lane subject to appropriate review and approval, which would further improve the intersection ICU. The SSEIR provides an analysis of potential environmental impacts, which is appropriate for the level of requested entitlement, i.e., general plan amendment and zone change. Detailed design concepts for this improvement will be prepared at the time a tentative level traffic study identifies a project impact at this location. If the free right turn lane option is pursued, detailed engineering and constraints will be addressed at that time. Though additional right-of-way may be required, no significant impacts to adjacent structures would occur.

A8-40 The commentator has requested additional mitigation at the intersection of "O" Street and Trabuco Road. At this intersection, a standard (exclusive) eastbound right turn lane with right turn overlap signal operation is recommended. The ICU analyses for future year scenarios with the 2012 Modified Project in the Traffic Impact Analysis show LOS B and C at this intersection with this improvement. Furthermore, the

suggested eastbound free right turn lane would pose operational challenges along southbound 'O' Street.

A8-41 The commentator asks about the inclusion of certain intersections in Exhibit 4.3. Culver Drive (Main Street to San Leandro), Culver Drive (San Leandro to I-405 NB Ramps), and Sand Canyon Avenue north of Oak Canyon have been deleted from the list. Portola Parkway south of SR-241 has been deleted from the list. Culver Drive (from Walnut to I-5) has been included. Trabuco Road (Culver Drive to I-5 ramps) has been verified, and it is not deficient. Updated Traffic Impact Analysis text page 4-8 is included in Attachment A in Appendix D of this FSSEIR.

A8-42 The commentator requests changes to page 4-8 of the Traffic Impact Analysis to add the intersection of El Toro/Avenida Carlota to the list of intersections with unacceptable LOS. El Toro/Avenida Carlota has been added to the list (see Attachment A in Appendix D of this FSSEIR).

A8-43 The commentator asks that the existing LOS for the Portola Springs/Portola Parkway intersection to be added to Table 4-1 of the Traffic Impact Analysis. Portola Springs at Portola Parkway has been added to Table 4-1 (see Attachment B in Appendix D of this FSSEIR), and the ICU worksheet is included as Attachment C in Appendix D of this FSSEIR. The impact analysis does not change.

A8-44 The commentator asks for changes to Table 4-8 of the Traffic Impact Analysis related to funding sources. Table 4-8 has been updated to include applicable revisions, and is included in Attachment D in Appendix D of this FSSEIR.

A8-45 The commentator requests that the Traffic Impact Analysis be revised so the improvement of Old Laguna Canyon Road crossing of I-405 is included in Table 4-6, not in Table 4-7. This change has been made (see Attachment D in Appendix D of this FSSEIR).

A8-46 The commentator asks for changes to Table 9-25 of the Traffic Impact Analysis to include the Option 2 impact at the Jeffrey/Alton intersection. However, Table 9-25 is correct as shown, and no impact at Jeffrey/Alton occurs for Option 2 in the 2030 scenario. Table 9-26 shows the mitigation for improvements needed at this intersection, based on the analysis in Table 9-22 (Post-2030). Table 9-25 refers to 2030 conditions.

A8-47 The commentator asks for changes to Exhibit 9-25 of the Traffic Impact Analysis related to proposed bus turnouts and transit stops. Additional citing of bus stops/turnouts will require coordination with OCTA and will occur as more specific plans are developed for transit oriented development around the station area.

A8-48 The commentator asks for verification that the transit stops along "LQ" Street will be considered acceptable to the City. The approved cross section for "LQ" Street incorporates six foot shoulders/bike lanes, eleven foot travel lanes (one in each direction), and a twelve foot striped median. Although auto traffic along this two lane

roadway may occasionally be inconvenienced by a potential stopped shuttle vehicle, the striped median allows some passing activity to occur when safe and if necessary.

A8-49 The commentator questions whether the 2012 Modified Project modifies the land use assumptions for District 7. The 2011 GPA/ZC Traffic Study analyzed single family land uses in District 7 to be conservative (single family land uses have a higher trip generation rate than multi-family land uses), though single family uses were not ultimately mapped and approved in District 7. The revisions in the 2012 Modified Project reflect a mix of single family and multi-family units to be consistent with the approved District 7 map. The map assumptions established the land uses that will be built in the District and there is no longer the intent to build anything other than the approved map (i.e. the 2011 General Plan Amendment assumptions are no longer being contemplated). No changes to the SSEIR are necessary.

A8-50 The commentator states that Traffic Impact Analysis should be modified to address certain segments on SR 133. Applicable exhibits have been updated in the Traffic Impact Analysis and the attached Tables 11 to 14 (see Appendix E in this FSSEIR) document the daily traffic volumes along segments of Laguna Canyon Road between El Toro Road and the I-405 Freeway. Data is provided for existing and future (2015, 2030 and Post-2030) scenarios included in the Traffic Impact Analysis. The revised exhibits reflect the updated post-processed data for SR-133 south of Old Laguna Canyon Road. Daily volumes on the Traffic Impact Analysis exhibits were inadvertently posted incorrectly along Laguna Canyon Road between El Toro Road and the I-405 Freeway. However, the 2012 Modified Project does not trigger any roadway segment impacts on these segments, and the DSSEIR Traffic Impact Analysis conclusions and findings do not change.

A8-51 The commentator asserts that the ADT projections for Irvine Center Drive between I-405 and Research Drive are low. Applicable exhibits have been updated in the Traffic Impact Analysis to provide data for the existing and future (2015, 2030 and Post-2030) scenarios. Daily volumes on the Traffic Impact Analysis exhibits were inadvertently posted incorrectly on the segment of Irvine Center Drive between the I-405 Freeway and Research Drive. However, the 2012 Modified Project does not trigger any roadway segment impacts at this location, and the Traffic Impact Analysis conclusions and findings do not change.

A8-52 The commentator states that the intersection locations where ATMS should be applied are not addressed properly. ATMS is only conservatively applied at intersections that experience a deficiency in either the AM or PM peak hour for the particular scenario evaluated.

A8-53 The commentator raises questions regarding the existing and future ICU LOS summary tables. The "LOS E OK" Column has been updated, and revised tables are included in Attachment B in Appendix D of this FSSEIR. The update does not change the findings of the impact analysis.

A8-54 The commentator raises questions regarding Tables 6-3 and 6-9 related to the 2015 HCM worksheets. Appendices 6.3, 6.4, 6.6, and 6.7 have been updated and are

included in Attachment E in Appendix D of this FSSEIR. Table 6-9 has been revised to show corrected data for the without project analysis. The findings of the traffic impact analysis do not change.

A8-55 The commentator states that the DSSEIR should include a discussion of the impacts to off-site traffic volumes resulting from changes to intersection geometry. The Traffic Impact Analysis uses analysis methodologies consistent with comprehensive NITM traffic studies, which focus on ICU analysis at off-site intersections to determine overall geometric needs (number and type of approach lanes, as well as special signal operational features), supplemented by HCM analysis at selected locations. No changes to the SSEIR are necessary.

A8-56 The commentator suggests an alternate lane configuration to the proposed improvements at the "O" Street/Marine Way intersection. Both the suggested configuration and the proposed configuration are appropriate.

LETTER A9 – Darren L. Haver, Ph.D., Director, South Coast Research & Extension Center, University of California (1 page)

University of California
Agriculture and Natural Resources

South Coast Research & Extension Center

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(949) 653-1810
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August 23th, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine
Community Development Department
PO Box 19575
Irvine, CA 92623-0575

Subject: Comments on the Draft Second Supplemental EIR for the Heritage Fields Project 2012 General Plan Amendment and Zone Change

Dear Mr. Curtis:

The University of California Division of Agriculture and Natural Resources (UC ANR) thanks you for the opportunity to submit comments on the Draft Second Supplemental EIR for the Heritage Fields Project 2012 General Plan Amendment and Zone Change. Following review of the documents it appears that the changes proposed do not result in any additional concerns that have not already been expressed in my earlier comments submitted on July 12th, 2011.

UC ANR's South Coast Research and Extension Center (SCREC) at 7601 Irvine Blvd will more than likely be impacted by the project in the form of our inability to continue conducting certain types of agricultural and environmental research due to our proximity to new residential and commercial development. In addition, crops sensitive to air pollutants, such as ozone from increased traffic and dust from construction, may be negatively impacted by the increased density in the surrounding areas. **A9-1**

Although UC ANR has concerns about the impact of the project on our research and extension activities, we also recognize the need to work collaboratively with the City and its partners. If you have any further questions related to Center, please do not hesitate to contact me at (949) 653-1814.

Sincerely,

Darren L. Haver

Darren L. Haver, Ph.D.,
Director, University of California Cooperative Extension –Orange County
Director, South Coast Research & Extension Center
Water Resources/Water Quality Advisor

c: Barbara Allen-Diaz, Vice President –UC ANR
William Frost, Director of REC System and Associate Director of CE & AES, UC ANR

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A9. Response to Comments from Darren L. Haver, Ph.D., Director, South Coast Research & Extension Center, University of California, dated August 23, 2012.

A9-1 The commentator raises concerns regarding land use compatibility with the on-going agricultural and environmental research activities at the South Coast Research & Extension Center. Implementation of the 2012 Modified Project would introduce new residential and nonresidential land uses near the University of California's South Coast Research & Extension Center (SCREC). However, the design and layout of those land uses has been planned to be consistent and compatible with the surrounding uses depicted by the City's General Plan and zoning map. Additionally, the proximity of projects near the facility that are either entitled or under construction will cumulatively impact the facility with or without implementation of the 2012 Modified Project. These projects include Portola Springs, Lambert Ranch, and the Great Park Neighborhoods as currently entitled (the 2011 Approved Project). The previous entitlements were much closer and the proposed changes associated with the 2012 Modified Project do not affect any land uses adjacent or in proximity to the South Coast Research & Extension Center, and no impacts to the facility would result. However, cumulative impacts to agricultural resources and air quality are addressed in Sections 5.2, *Agricultural Resources*, and 5.3, *Air Quality*, of the DSSEIR. With respect to fugitive dust emissions, PM2.5 and PM10 emissions during construction will be controlled through compliance with PPP 3-3 (SCAQMD Rule 403). As for Ozone, the 2012 Modified Project itself does not generate Ozone, rather it generates other emissions that are the precursors to Ozone when exposed to sunlight. However, regional Ozone concentrations are addressed by the SCAQMD's 2012 Air Quality Management Plan, which anticipates attainment of the Ozone standards by 2023. Therefore, project-related air quality emissions are not anticipated to affect the SCREC's ability to continue agricultural operations on-site.

The following mitigation measures (AG-1 and AG-3) included in the DSSEIR, protect on-going agricultural uses adjacent to the 2012 Modified Project Site:

AG-1 In order to encourage agriculture as an interim land use pending development on the project site by warning future residents that they are buying or renting a house adjacent to existing agricultural operations, ~~City Of Irvine Standard Discretionary Case Condition 8.4 and City Of Irvine Standard Subdivision Condition 3.4 regarding~~ disclosure statements shall ~~be amended to~~ include the following for subdivisions proposed adjacent to existing agricultural operations:

> Prior to issuance of building permits, the applicant shall submit, and the Director of Community Development shall have approved, a completed occupancy disclosure form for the project. The approved disclosure form, along with its attachments, shall be included as part of the rental/lease agreement and as part of the sales literature for the project. The disclosure statement shall include the following information:

Continuation of agricultural operations adjacent to the site and their potential effects (spraying of pesticides, noise, dust, odor, etc.) on future residents or tenants.

AG-3 Future landowners and the City shall work cooperatively with farmers to minimize conflicts between agricultural operation and adjacent urban uses.

No changes to the SSEIR are necessary.

LETTER A10 – Gayle Ackerman, AICP, Director of Development Services, City of Lake Forest (4 pages)

CITY OF LAKE FOREST

Mayor
Kathryn McCullough

Mayor Pro Tem
Scott Voigts

Council Members
Peter Herzog
Marcia Rudolph
Mark Tettemer

City Manager
Robert C. Dunek

August 24, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine
Community Development Department
P.O. Box 19575
Irvine, CA 92623-0575

Re: Heritage Fields Project 2012 General Plan Amendment and Zone Change Draft Second Supplemental Environmental Impact Report (Planning Areas 30 and 51) (State Clearinghouse No. SCH #2002101020)

Dear Mr. Curtis:

The City of Lake Forest has reviewed the Draft Second Supplemental Environmental Impact Report (DSSEIR) for the above-mentioned project. The project proposes a General Plan Amendment and Zone Change to allow changes to the Heritage Fields project approved in 2011.

The City of Lake Forest has the following comments:

1. The proposed project includes the modification of the Master Plan of Arterial Highways (MPAH) to eliminate the Rockfield Boulevard extension to Marine Way.
   - Provide a justification for the MPAH change.
   - Clarify what the impact of the elimination of the Rockfield Boulevard extension would be on the intersection of Bake Parkway and Rockfield Boulevard.
   - Clarify what the impact of the elimination of the Rockfield Boulevard extension would be on the intersection of Bake Parkway and Marine Way.
   - A deferred mitigation measure is being used to address the impacts from the elimination of the Rockfield Boulevard extension. Mitigation measure TRAN-2 states that "after" the adoption of the Great Park land use and circulation plans, the City of Irvine will conduct a cooperative study with adjacent cities and the Orange County Transportation Authority. The intent of the cooperative study is to mutually determine and analyze the impacts from a proposed MPAH amendment. While a sensitivity analysis was included in the traffic study to study a scenario without the MPAH amendment, information arising from the cooperative study would be beneficial during the environmental

A10-1

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review process. Therefore, we recommend that the cooperative study process be completed prior to making a CEQA determination.

- Page 2.22 of the Traffic Impact Analysis references the "Bake Parkway – Marine Way Circulation System Amendment Traffic Study", 2008, but does not include it within the DSSEIR for reference. Please include this document in the DSSEIR.

A10-1 cont.

2. Section 3 – The Project Description section makes references to several Vesting Tentative Maps: VTTM 17002, VTTM 17008, 17364, 17366, and 17368. These Tentative Tract Maps were not included as Figures or Appendices, and do not allow a complete review of the current project description (Modified Project) as it exists. Since the Modified Project references locations from these VTTMs, please include them within the DSSEIR to provide detail and context to accompany the project description.

A10-2

3. Section 4.5 – Cumulative impacts. Please verify that the traffic analysis includes two recently submitted (February 2, 2012) General Plan Amendment / Zone Change/ Tentative Tract Map / Site Development Permit application(s) for the redesignation of sixteen (16) acres from Commercial to Medium-Density Residential development to accommodate approximately 225 residential units.

A10-3

4. Section 5.12 – Transportation. The traffic study identifies two scenarios for analysis:

   a. Option 1 - Includes the conversion of Institutional (Education) and Office land uses to Multi-Use (Non-Residential) or Medical and Science (R&D) in District 1 North.

   b. Option 2 – In addition to the Option 1 conversions in District 1 North, this option includes a relocation of Multi-Use and Retail from District 1 North to District 1 South, as well as changes in Districts 1 North to accommodate approved residential units displaced from a portion of District 1 South.

A10-4

   However, the Project Description also identifies two potentially different scenarios: development of 535,000 square feet of non-residential square footage or conversion of that square footage into 1,200 residential units. PDF 12-1 states that the conversion would be subject to a traffic analysis. However, since it is part of the project description, the analysis for both scenarios should be included in the traffic study. Please verify that both scenarios were analyzed in the traffic study, as our review did not reveal an analysis.

5. How was the data from the Lake Forest Traffic Analysis Model (LFTAM) acquired and what is the date of the data? The City currently does not have a Post 2030 LFTAM model so please indicate what version of LFTAM was used for the Post 2030 scenarios.

A10-5

6. Section 5.12 – Transportation. Table 5.12.7 shows that the 2030 Plus Project will result in a change of Level of Service from E to F at the Bake Parkway / Rockfield Boulevard intersection. Subsequently, the mitigation measure described on Page 5.12-96 states that the Bake Parkway / Rockfield Boulevard intersection is a fully-funded LFTM (Lake Forest Transportation Mitigation program) improvement involving the conversion of a westbound through lane to a 3rd left turn lane.

Table 5.12-7
Year 2030 Intersection ICU LOS With 2012 Modified Project Option 1
Project Impact Locations

Intersection	Peak Hour	2030 Without 2012 Modified Project		2030 2012 Modified Project	
		ICU	LOS	ICU	LOS
Browning Ave. & Irvine Blvd.	AM	1.00	E	1.03	F
Culver Dr. & Barranca Pkwy.	AM	0.91	E	0.93	E
Jeffrey Rd. & Barranca Pkwy.	AM	0.90	D	0.92	E
Sand Canyon & I-5 NB Ramp/Marine	PM	0.83	D	0.94	E
Sand Canyon Ave. & Oak Canyon	PM	0.91	E	0.94	E
Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.01	F
Los Alisos Blvd. & Rockfield Blvd.	AM	0.92	E	0.94	E

Source: Urban Crossroads, 2012.

A10-6

   a. Given that the Heritage Fields project contributes to the impact, include provisions that allow for a fair share agreement to fund necessary improvements; and

   b. Include a discussion as to what would occur if these improvements were needed due to build out of the Great Park prior to the need being generated from development in Lake Forest.

7. Section 5.12 – Transportation. The completion of Portola Parkway from Sand Canyon to the City of Lake Forest city limits is listed on the Master Plan of Arterial Highways and in the Circulation Plan of the Irvine General Plan. Please indicate whether analysis of this project using the Irvine Transportation Analysis Model considered the completion of Portola Parkway from State Route 133 to Alton Parkway and the reasons for the determination.

A10-7

8. Section 5.12 – Figure 5.12-32 indicates that a Class I bicycle lane will be constructed parallel to Irvine Boulevard from "O" Street o to "LQ" Street. Consider construction of the proposed Class I bicycle lane along Irvine Boulevard all the way to Alton Parkway. As you are aware, Alton Parkway has been completed between Irvine Boulevard and Towne Center Drive in Lake Forest, providing access to many employment and shopping areas and more significantly, the Whiting Ranch Regional Park and trail system and the Aliso Creek Bikeway (via Irvine Boulevard / Trabuco Road).

A10-8

If you have any questions, please contact me at (949) 461-3463, or by email by gackerman@lakeforestca.gov.

Sincerely,
CITY OF LAKE FOREST

Gayle Ackerman

Gayle Ackerman, AICP
Director of Development Services

Cc: Tom Wheeler, Director of Public Works
Cheryl Kuta, Planning Manager
Marcella Nankervis, Traffic Engineering Manager
Carrie Tai, Senior Planner

A10. Response to Comments from Gayle Ackerman, AICP, Director of Development Services, City of Lake Forest, dated August 24, 2012.

A10-1 The commentator requests a justification for the change to the Orange County Master Plan of Arterial Highways ("Orange County MPAH"). The current alignment of Rockfield Boulevard was approved by OCTA on January 26, 2009. Prior to that, the extension of Rockfield Boulevard served as the connection between Bake Parkway and Alton Parkway. Marine Way duplicated that connection when it was added to the Orange County MPAH and Rockfield Boulevard was revised to the existing configuration. The existing configuration of Rockfield Boulevard is shown to be underutilized. The Traffic Impact Analysis includes an analysis scenario which addresses the existing Orange County MPAH alignment of Rockfield Boulevard. The Post 2030 traffic volumes for Rockfield Boulevard west of Thomas are projected to be7,400 ADT. This volume is significantly lower than the 20,000 to 30,000 ADT typically served by a primary arterial. The Traffic Impact Analysis provides a comprehensive assessment of traffic conditions in the event that Rockfield Boulevard is ultimately removed from the Orange County MPAH.

The Orange County MPAH is administered by the Orange County Transportation Authority (OCTA). Requests to amend the Orange County MPAH can be initiated by a local jurisdiction, subject to adherence to an MPAH Amendment Process.

Approval by the local jurisdiction that is requesting the MPAH Amendment must be obtained prior to consideration of such amendment by OCTA. In this case, that means that the City must approve the deletion of Rockfield Boulevard, in concept, from its General Plan. However, the City cannot actually amend its General Plan until after OCTA takes final action on the MPAH Amendment.

The OCTA Amendment Process requires that a local jurisdiction file an official letter of request outlining any proposed changes to the Orange County MPAH. When a change to the Orange County MPAH is not administrative in nature, as is the case for the Rockfield Boulevard deletion, the local agency must also proceed with a cooperative study process with OCTA and adjacent jurisdictions to analyze the transportation/circulation impacts of the proposed Orange County MPAH changes. As part of the cooperative study process, input from affected jurisdictions will be obtained. The Traffic Impact Analysis will be the key document for the cooperative study process. The participating jurisdictions in the cooperative study process will have the opportunity to review the study scope, identify issues and concerns, and review the Traffic Impact Analysis to determine the degree of impact the proposed MPAH Amendments could have upon their respective transportation systems. Any jurisdiction impacted by the proposed MPAH downgrade or deletions must agree to the amendment before the OCTA Board of Directors can consider and act upon the request. Upon such concurrence, OCTA Board approval of the Orange County MPAH amendment is then conducted, conditional upon the local jurisdiction's subsequent adoption of a General Plan Amendment that revises its Circulation Element to incorporate the proposed amendments.

City of Irvine staff met with OCTA staff to conceptually discuss the MPAH amendment process and the project concept. OCTA conveyed that they were willing to review such a proposed MPAH amendment. OCTA will review the proposal and move forward with the process once the City submits a written request and accompanying traffic analysis.

The commentator requests clarification regarding the impact of eliminating the Rockfield extension on the intersection of Bake Parkway and Rockfield Boulevard. At the intersection of Bake Parkway and Rockfield Boulevard, the 2012 Modified Project impact for 2030 is mitigated by conversion of a westbound though lane to a third left turn lane.

The commentator requests clarification regarding the impact of eliminating the Rockfield Boulevard extension on Bake Parkway and Marine Way. At the intersection of Bake Parkway and Marine Way, the ICU analyses for future year scenarios with the 2012 Modified Project in the Traffic Impact Analysis show LOS B and C at this intersection, including modification of the MPAH to eliminate the Rockfield Boulevard extension to Marine Way. This MPAH change does not alter the roadway improvements already programmed for this intersection location based upon the City of Irvine preferred alternative evaluated in the "Bake Parkway – Marine Way Circulation System Amendment Traffic Study" (Parsons Brinckerhoff, June 2008). These improvements include the addition of a fifth southbound through/shared right turn lane.

The commentator recommends that the cooperative study process between the City and OCTA occur prior to certification of the SSEIR. But, the MPAH cooperative study process is not necessary prior to making a CEQA determination because the Traffic Impact Analysis already includes a comprehensive analysis of conditions with or without the MPAH change. The process with OCTA will precede the MPAH amendment.

The commentator requests that the Bake Parkway-Marine Way Circulation System Amendment Traffic Study from 2008 be included as part of the SSEIR. The Bake Parkway-Marine Way Circulation System Amendment Traffic Study from 2008 is part of Addendum 5, which is part of the 2011 Certified EIR. The 2011 Certified EIR is incorporated by reference into the SSEIR. No changes to the SSEIR are necessary.

A10-2 The commentator requests that VTTM 17002, VTTM 17008, VTTM 17364, VTTM 17366, and VTTM 17368 be included in the Project Description. All of these VTTMs are part of the 2011 Approved Project, not part of the 2012 Modified Project. The commentator is referred to Figures 3-8 through 3-18 of the 2011 SEIR, which is incorporated by reference in the SSEIR. No changes to the SSEIR are necessary.

A10-3 The commentator asks whether two applications within the City of Lake Forest submitted on February 2, 2012 for a General Plan Amendment/ Zone Change/ Tentative Tract map/ Site Development Permit for the redesignation of 16 acres from Commercial to Medium Density Residential development to accommodate 225 residential units are included in the cumulative impacts analysis. Though specific

detail was not provided by the commentator, it is our understanding that the comment refers to the Paseos at Foothill Ranch project and the Foothill Ranch Towne Center project (the "Lake Forest Projects").

The SSEIR uses a combination of the "list method" and the "summary of projections" method to analyze cumulative impacts, and the commentator's question relates to the methodology for the list method in the Traffic Impact Analysis. When using the list method, the City must use "reasonable efforts to discover, disclose, and discuss" related past, present, and future projects, even if under review by other agencies. (CEQA Guidelines section 15130(b)(1).) The City issued an NOP on April 3, 2012 for the 2012 Modified Project, and received no responses from the City of Lake Forest regarding the Lake Forest Projects.

Nonetheless, the City obtained, from City of Lake Forest staff, recent drafts of the Paseos at Foothill Ranch Traffic Impact Analysis (RBF Consulting, July 2012) and the Foothill Ranch Towne Centre Residential General Plan Amendment and Zone Change Traffic Study (Stantec Consulting Services, August 2012) (together, the "Lake Forest Traffic Reports"). The Lake Forest Projects are located between Bake Parkway and Lake Forest Drive, south of Portola Parkway and north of the SR-241.

Six of the intersections analyzed in the Lake Forest Traffic Reports are NITM study area intersections:

- 361 - Bake Parkway & Portola Parkway
- 374 - Lake Forest Drive & Portola Parkway
- 373 - Lake Forest Drive & SR-241 NB Ramps
- 375 - Lake Forest Drive & SR-241 SB Ramps
- 515 - Bake Parkway North & Rancho Parkway North
- 516 - Lake Forest Drive & Rancho Parkway North

For each of the six intersections, the total increase in traffic on each movement for the Lake Forest Projects was calculated by comparing the turning movement volumes in the two Lake Forest Projects to their No Project turning movement volumes and then adding the two project differences together. Where there was an increase in volume from the two new pending projects, that increase was added to the Pending No Project and Pending With Project turning movement volumes. The increases were applied to the intersection volumes analyzed in the Traffic Impact Analysis scenarios for pending projects.

For each of these six intersections, an intersection capacity utilization (ICU) analysis was performed for 2015, 2030 and Post 2030 with pending projects, with the Lake Forest Projects. Table 18 located in Appendix E of this FSSEIR summarizes the results of that analysis. No new 2012 Modified Project impacts would occur when the Lake Forest Projects are taken into account.

A10-4 The commentator asks that the SSEIR include a traffic analysis for the optional conversion of 535,000 square feet of non-residential uses to up to 889 additional dwelling units and 311 density bonus units. It is a basic tenet of CEQA that an environmental analysis "should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." (CEQA Guidelines, 15004, subd. (b); *No Oil v. City of Los Angeles* (1974) 13 Cal.3d 68, 77, fn. 5.) Nonetheless, "where future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences." (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 395 quoting *Lake County Energy Council v. County of Lake* (1977) 70 Cal.App.3d 851, 854-855.) The optional conversion is just that, optional. There is no certainty that it will ever occur, and, if it does occur, there is no certainty as to how it will occur. That is, the conversion allows for a myriad of permutations as to the number, type, and location of residential development that could be constructed. Therefore, any analysis of the conversion would be beyond the level of environmental clearance required at this time. This approach has been applied to other approved conversions that could result in many combinations of land use patterns. Further, the proposed zoning for the 2012 Modified Project specifically prohibits any conversion from occurring without additional environmental review if such conversion would result in any new or altered impacts that differ from those analyzed by the Traffic Impact Analysis. No changes to the SSEIR are necessary.

A10-5 The commentator asks about how the data from LFTM was acquired and its date, and asks how the Traffic Impact Analysis took into account the post 2030 time frame for LFTM. The City does not have access to LFTM. The source for the LFTM data was the Shea-Baker Ranch Traffic Study dated January 2012. Since the City of Lake Forest does not maintain a Post 2030 version of LFTM and Lake Forest is assumed to be built-out by Year 2030, Year 2030 LFTM forecasts are used as a baseline for the Post 2030 analysis of Lake Forest intersections. For this study, traffic volume changes generated by ITAM 8.4-10 are overlayed on LFTAM datasets within the City of Lake Forest, and the ITAM 8.4-10 is directly utilized for all other locations in the traffic analysis study area. No changes to the SSEIR are necessary.

A10-6 The commentator requests additional information regarding mitigation for additional improvements at the Bake Parkway/Rockfield Boulevard intersection. Timing and coordination of the 2012 Modified Project's conversion of a westbound though lane to a third left turn lane at the Bake Parkway/Rockfield Boulevard intersection will be coordinated with the City of Lake Forest. TRAN 7 has been revised to reflect the project responsibility and mitigation at this location.

A10-7 The commentator asks whether the ITAM model used in the Traffic Impact Analysis considered the completion of Portola Parkway from State Route 133 to Alton Parkway. As indicated in Table 4-7 of the Traffic Impact Analysis, completion of Portola Parkway from SR-133 to Alton Parkway is assumed in the Post-2030 analysis scenarios because it is consistent with the adopted OCTA MPAH and General Plan build-out conditions. It is not assumed in the 2030 analysis scenarios because there is

no committed funding for its construction at this time. No changes to the SSEIR are necessary.

A10-8 The commentator asks that the City consider including the construction of a Class I bicycle lane along Irvine Boulevard all the way to Alton Parkway. The Class I bicycle trail shown along Irvine Boulevard in the Project Area Bikeways and Trails Exhibit (Exhibit 9-23 of the Traffic Impact Analysis) has been extended to the edge of the 2012 Modified Project boundary (see Attachment F in Appendix D of this FSSEIR) and the City and Applicant will work with Lake Forest on a design to extend the bicycle trail to Alton Parkway. This exhibit has also been revised to include modification of the MPAH to eliminate the Rockfield Boulevard extension to Marine Way, and extension of the Class I bicycle trail shown along Marine Way to Bake Parkway.

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LETTER A11 – Paul Weghorst, Director of Water Resources and Environmental Compliance, IRWD (3 pages)

IRVINE RANCH WATER DISTRICT 15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

August 24, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine
P.O. Box 19575
One Civic Center Plaza
Irvine, CA 92623-9575

Subject: Draft Heritage Fields Project 2012 GPA/ZC Second Supplemental Environmental Impact Report

Dear Mr. Curtis:

Irvine Ranch Water District (IRWD) has received and reviewed the subject Draft Supplemental Environmental Impact Report (DSEIR), and offers the following comments:

- The DSEIR correctly identifies IRWD as the potable water, non-potable water, and wastewater service provider to the project. **A11-1**
- The DSEIR incorrectly states that 75% to 80% of IRWD's current potable water supply comes from groundwater sources. In fiscal year 2011-12 approximately 70% of IRWD's potable water supply came from groundwater sources. **A11-2**
- The DSEIR correctly states that the 2011 SAMP was completed for the project and the Sub-Area Master Plan (SAMP) did perform "Sensitivity Analysis" to considered the potential impact of higher densities throughout Existing PAs 30 and 51. However additional analysis will be required to determine the extent of impacts to specific existing or planned future IRWD facilities. A PAs 30 and 51 SAMP update will be required to be completed when more specific information is available on the proposed new and revised land uses. Please contact Michael Hoolihan at (949) 453-5553 to coordinate a SAMP update. **A11-3**
- The DSEIR is unclear as to the ownership and operation of the sewer collection facilities on the former El Toro Marine Corp Air Station (ETMCAS). IRWD does not own or operate existing sewer collection facilities on the ETMCAS. **A11-4**
- IRWD was not involved with the development of the report mentioned on page 5.13-23 (Sewer and Water Master Plan Study prepared for the 2012 Modified Project - Appendix J). Sewer generation flows and impacts to the onsite and offsite IRWD facilities will **A11-5**

need to be evaluated in a SAMP update for the 2012 Modified Project. It is currently inconclusive whether or not the 2012 Modified Project will have an impact on the sewer collection facilities. **A11-5 cont.**

- IRWD has several concerns with the DSEIR Section 5: Hydrology and Water Quality, the Project Water Quality Technical Report and 2011 SAMP updates relative to proposed water quality Natural Treatment System (NTS) facilities. Those sections incorrectly refer to "incorporation of 13 water quality facilities". IRWD has not agreed to accept a total of 13 facilities. Discussions with Heritage Fields in 2011 led to a conditional agreement from IRWD to accept only 7 facilities, plus Marshburn which is an existing facility. This is clearly stated in Appendix B NTS Correspondence to the 2011 SAMP update, dated October 13, 2011, but is not reflected in the DSEIR. Additionally, there is no updated map provided within the DSEIR to show the proposed modification to 7 facilities. IRWD requests that an updated NTS proposed facility map be included in the SEIR. **A11-6**

- The SAMP and associated DSEIR have based calculations and assumptions for modeling and removals from the proposed NTS facilities on the 2003 DAMP and IRWD's NTS Master Plan (2005). The proposed bioretention cell sites are different from the regional constructed wetlands identified and modeled in IRWD's 2005 NTS Master Plan, and referenced in the 2011 SAMP, both in location and type of facility. Bioretention cell removals were not modeled in IRWD's NTS Master Plan, and IRWD does not have any data on expected removals of pollutants from bioretention cells. IRWD recommends the SAMP and DSEIR be updated to reflect the updated proposal and modeling of expected removals be revised to reflect the proposed modifications. For example, biological removals from bioretention cells are anticipated to be different than what would be expected from surface water treatment in constructed wetlands, due to the lack of exposure of surface water and UV disinfection. Further, IRWD's 2005 Master Plan models are based on a regional treatment approach, and smaller, more localized facilities are likely to perform differently. **A11-7**

- Another issue for IRWD is the potential long-term water quality monitoring requirements for the NTS facilities. This is not discussed in the Hydrology and Water Quality or the Water Quality Technical Report sections of the DSEIR. However, it was clearly stated in the 2011 SAMP Update Appendix B NTS Correspondence that IRWD's acceptance of any facilities would be conditioned upon IRWD's acceptance of any monitoring requirements established by the Santa Ana Regional Water Quality Control Board (SARWQCB). Preliminary discussions with the SARWQCB have indicated there would likely be no monitoring requirements or associated costs. Should this change in the future, even after IRWD has potentially accepted long-term maintenance for the facilities, Heritage Fields will need to identify an entity willing to accept long-term fiscal responsibility for any monitoring and reporting costs associated with the proposed facilities. **A11-8**

Mr. Barry Curtis
City of Irvine
Draft Heritage Fields Project 2012 GPA/ZC Second Supplemental Environmental Impact Report
Page 3

- Finally, IRWD requests that the DSEIR address coordination efforts with the O.C. Great Park (OCGP) for the water quality control facilities being proposed. OCGP has had initial discussions with IRWD related to stormwater capture and water quality control facilities. OCGP's plans could potentially impact the Heritage Fields water quality control plan. For example, it may be possible to consolidate or eliminate NTS facilities. IRWD requests that the SEIR address this particular issue.

A11-9

IRWD appreciates the opportunity to review and comment on the DSEIR. If you have any questions or require additional information, please contact Kellie Welch at (949) 453-5604.

Sincerely,

Paul Weghorst
Director of Water Resources and Environmental Compliance

cc: Mike Hoolihan, IRWD
Fiona Sanchez, IRWD
Kellie Welch, IRWD

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A11. Response to Comments from Paul Weghorst, Director of Water Resources and Environmental Compliance, IRWD, dated August 24, 2012.

A11-1 The commentator notes that the DSSEIR identifies IRWD as the service provider to the 2012 Modified Project for potable and non-potable water and wastewater. The comment is noted and no response is necessary.

A11-2 The commentator states that the DSSEIR's figures regarding the supply of potable water from groundwater should be changed. The text on page 5.13-3 of the DSSEIR cited figures from the Water Supply Assessment for the Heritage Fields 2012 Project dated and approved on June of 2012. The SSEIR will be changed at commentator's request, though the changes do not modify the conclusions in the SSEIR. Page 5.13-3 has been revised, as follows:

Potable Water Supply

Less than 25 percent of IRWD's domestic water is purchased from the MWD and imported from the Colorado River via the Colorado River Aqueduct and the SWP. The majority of IRWD's imported potable water is supplied from a single source, the MWD Diemer Filtration Plant, located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the MWD lower feeder and SWP water through the Yorba Linda Feeder. In fiscal year 2011-2012, g~~G~~roundwater provided ~~now makes up~~ approximately 70 ~~75 to 80~~ percent of IRWD's total potable water supply ~~depending on a series of local wells, including Dyer Road Wellfield Project and the IRWD's Deep Aquifer Treatment System ("DATS")~~.

A11-3 The commentator has indicated that a SAMP update will be required in the future when more specific information is available on the location of infrastructure and the types of land uses. Per previous discussions with IRWD about the 2012 Modified Project, when layouts for backbone streets and preliminary utility layouts are available and subsequent tentative maps are filed, the SAMP for Combined PA 51 may be updated, as necessary. As stated in the comment and discussed in Section 5.13 of the DSSEIR, a "Sensitivity Analysis" was included in the 2011 SAMP update and used as the basis to size infrastructure and assess any potential impacts related to the additional residential units up to a maximum of 9,500 residential units without a reduction in non-residential uses. In addition, an Updated Sewer and Water Master Plan Study (see Appendix H) was prepared for the 2012 Modified Project that also included the "optional conversion". This report concludes that the impacts to IRWD facilities of the 2012 Modified Project with operational conversion are less than significant.

A11-4 The commentator asks for clarification regarding the ownership and operation of the sewer collection facilities on the former El Toro Marine Corp Air Station and notes that they are not owned or operated by IRWD. The 2012 Modified Project does not contemplate that IRWD will own, operate or maintain any of the existing facilities within the 2012 Modified Project area. Future sewer and water facilities will be

constructed to IRWD standards and will be owned and maintained by IRWD. No changes to the SSEIR are necessary.

A11-5 The commentator states that additional analysis should be done with respect to potential impacts on IRWD's onsite and off-site sewer collection facilities. A copy of the Sewer and Water Master Plan Study prepared for the 2012 Modified Project and optional conversion has been provided to IRWD for review. Within this study, Sewer Generation rates (Average Day) were identified tributary to Reach A, Reach B and the Sewer along the I-5 Freeway. The report concludes that the increases to each of these onsite and offsite IRWD facilities are less than significant. These values will be further refined when a SAMP Update is prepared at a future date.

A11-6 The commentator states that it has agreed to accept a total of seven water quality facilities, not 13 water quality facilities, and requests an updated Natural Treatment System (NTS) map. The 2011 SEIR analyzed development of VTTMs in Districts 1, 4, 7, and 8 and programmatic development of the balance of applicant's property. As stated on page 5.6-20 of the DSSEIR, the approved Conceptual Project WQMP (Update and Clarification August 2011) includes incorporation of up to 13 water quality facilities for the overall development. In support of the 2011 Approved Project, Hunsaker & Associates and RBF prepared Preliminary Water Quality Management Plans in May 2011, which were incorporated into the 2011 SEIR. IRWD staff indicated in a meeting on October 2, 2013 that there is no prescribed limitation on the number of water quality facilities. As project planning progresses, the developer will work in good faith to reasonably minimize the total number of such facilities. The actual number and location of sites will be determined as development district land plans are further refined. Included as Appendix G in the FSSEIR, an updated water quality technical report was prepared and concluded that no changes to the WQMP are necessary as a result of the 2012 Modified Project.

Figure 1 (Figure 6-2 of the Conceptual Project WQMP, RBF) and Figure 2 have been added to the updated Water Quality Technical Report in Appendix G of this FSSEIR to show the original and updated potential locations of water quality facility sites for the overall project (Great Park Neighborhoods and Great Park). Consistent with PPP 6-4, a project-level WQMP showing planned locations of water quality facilities will be submitted prior to the issuance of precise grading permits. As stated in the DSSEIR, implementation of this standard condition of approval along with other mitigation measures and regulatory requirements will result in mitigation of all water quality impacts to a level that is less than significant. As requested, revisions to Section 5.6, *Hydrology/Water Quality*, have been made as shown in Chapter 4 of this FSSEIR.

A11-7 The commentator requests changes to the SSEIR related to potential changes to modeling for bioretention cell removals. Based on recent discussions and a meeting with City and IRWD staff, the project water quality facilities will be designed and constructed according to the current IRWD NTS Design Guidelines, and accepted by IRWD into its NTS program. In addition, a bioretention facility has been constructed in District 8 in accordance with an agreement between the developer and IRWD. If IRWD or City wishes to substitute other facilities with bioretention, IRWD and City

will work with the developer to consider and implement a mutually agreeable alternative.

A11-8 The commentator acknowledges that it is not anticipated that there would be any monitoring requirements or associated costs required by SARWQCB, but nonetheless requests that the SSEIR include identification of a potential funding source to cover costs should monitoring be required in the future. The applicant assumes the funding source comment is related to testing for constituents beyond IRWD's standard sampling program. Since this condition is not expected, a potential funding source has not been identified. If deemed necessary, the applicant and IRWD will discuss at that time and mutually agree to a funding source. No changes to the SSEIR are necessary.

A11-9 The commentator requests that the SSEIR address coordination with the Great Park Board related to water control facilities. The City concurs that coordination between the 2012 Modified Project and the Great Park may be beneficial. However, any future plans related to stormwater capture and water quality facilities are outside of the scope of the 2012 Modified Project described in the SSEIR. As future facilities are designed for areas not already mapped, appropriate environmental review will occur. Further, as additional project planning occurs, the applicant will consider any mutual opportunities that may exist between the two projects. No changes to the SSEIR are necessary.

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LETTER A12 – Karen A. Goebel, Assistant Field Supervisor, FWS (11 pages)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

In Reply Refer To:
FWS-OR-10B0240-12TA0530

AUG 30 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine, Community Development Department
PO Box 19575
Irvine, California 92623-0575

Subject: Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project 2012 General Plan Amendment and Zone Change, City of Irvine, Orange County, California

Dear Mr. Curtis:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Second Supplemental Environmental Impact Report (DSSEIR) for the above-referenced Project, dated July 2012. The revised project includes (in part) rezoning to increase the density of residential development and relocate the Irvine Wildlife Corridor (wildlife corridor). The Service met with the city of Irvine (City), the California Department of Fish and Game, Heritage Fields El Toro, LLC (applicant), and representatives of Orange County Great Park on August 23, 2012, to discuss the proposed relocation of the wildlife corridor. We appreciate the opportunity for early coordination on the DSSEIR.

The primary mission of the Service is to "work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." Specifically, the Service administers the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), and provides support to other Federal agencies in accordance with the provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*).

A stated objective in the DSSEIR is to create a biologically effective wildlife corridor (page 3-2). We previously provided recommendations for the design of an effective wildlife corridor based on our review of the Irvine Wildlife Corridor Plan (Plan), dated March 2003 (enclosure). In particular, we recommended an average width of 1,000 feet for the length the corridor to minimize human-generated disturbances (e.g., wildfires, unauthorized recreational use, waste dumping, night lighting, exotic plant and animal invasion) associated with surrounding land uses. Subsequent revisions to the Plan (e.g., May 2004, January 2006) included Special Development Requirements to ensure human-generated disturbances would not limit the effectiveness of the corridor.

A12-1

Our primary concern with the proposed Project is the increase in residential housing density and its potential to preclude the design of a biologically effective wildlife corridor. The DSSEIR includes inadequate detail to determine if a wildlife corridor can be designed to sufficiently minimize disturbances associated with surrounding land uses in the proposed location and in a manner that is biologically effective. **A12-1**

We offer the following comments and recommendations regarding the proposed relocation of the wildlife corridor for your consideration based on our review of the DSSEIR and our knowledge of declining habitat types and species within Orange County.

1. *Irvine Wildlife Corridor Plan* – Please clarify in the DSSEIR if the proposed project will continue to be subject to the Special Development Requirements to ensure human-generated disturbances will not limit the effectiveness of the corridor and if the proposed zone changes will result in modifications to the Special Development Requirements. We recommend the City reconsider our previous comment letter and the intent of the Special Development Requirements when evaluating the potential for the project site to support a biologically effective wildlife corridor in the proposed location. **A12-2**

2. *Relocation Adjacent to Existing Development* – The wildlife corridor will be relocated to the eastern edge of the project site, adjacent to Borrego Canyon Channel and existing commercial development. This will likely result in increased light and noise levels within the corridor and possibly the need for maintenance activities and access roads. The DSSEIR should identify any maintenance activities, access roads, and design features that will be required within the wildlife corridor as a result of the proposed zone change based on adjacent land uses. **A12-3**

3. *Relocation Away from the Lower Agua Chinon Riparian Corridor* – Impacts to waters of the United States in association with construction of the Heritage Fields/Great Park/Irvine Wildlife Corridor Project will be compensated by re-establishment and rehabilitation of the Agua Chinon drainage as a natural drainage channel (U.S. Army Corps of Engineers Permit No. SPL-2006-01452-CJF, dated February 21, 2012 "Corps Permit"). According to the Corps Permit, the lower Agua Chinon Riparian Corridor will connect at its southern limits with the Irvine Wildlife Corridor. This connection provides an alternate movement pathway for wildlife thereby increasing opportunities for wildlife dispersal through the Great Park. The proposed zoning changes will eliminate the direct connection with the lower Agua Chinon Riparian Corridor. The DSSEIR should consider additional design features that would maintain the connection or evaluate how the elimination of the connection will impact the effectiveness of the wildlife corridor. **A12-4**

4. *Project Design Feature 10-1* – Project Design Feature (PDF) 10-1 requires the Orange County Fire Authority to approve the plant schemes and palettes within the wildlife corridor and allows for maintenance of vegetation as necessary for fire control. According to the DSSEIR, "PDF 10-1 would ensure adequate access to and within the Proposed Project Site, which further ensures the adequate provision of fire protection and emergency services to **A12-5**

residents and businesses" (page 5.10-4). This measure is inconsistent with the Special Development Requirements for the Core Zone[a] of the wildlife corridor. Specifically, the May 2004 version of the Plan prohibits fuel modification zones within the Core (page 2-3) The January 2006 version of Plan requires setbacks for development to avoid the need for fuel modification (page 22) and limits vegetation maintenance to the removal of non-native plants (page 26). Although PDF 10-1 does not explicitly require vegetation maintenance, if the Orange County Fire Authority requires a certain plant palette and density of plants then it is clear that some maintenance will be required to maintain the desired conditions.

We recommend the City exclude fuel modification zones within the corridor. The purpose of limiting vegetation maintenance within the corridor is to limit direct disturbance to wildlife and to prevent the spread of non-native plant species into adjacent undisturbed habitat. The maintenance of specific native plant species to specific density levels will require special knowledge and experience with native plants and should be conducted in the presence of a biological monitor to prevent unintentional impacts to wildlife. The DSSEIR should clarify if the proposed rezoning will require the wildlife corridor to contain fuel modification zones. If vegetation management for fire control will be required, the DSSEIR should identify the specific triggers for maintenance, anticipated frequency of maintenance, and the specific measures that will be implemented to ensure the maintenance will be conducted in a manner that does not result in impacts to wildlife or limit the effectiveness of the corridor.

A12-5 cont.

5. *Project Design Feature 10*-2 – PDF 10-2 is intended to ensure edge effects, including human disturbance, unauthorized access, light and noises are minimized within the wildlife corridor. It is our understanding that PDF 10-2 is intentionally broad because specific plans for development adjacent to the corridor have not been finalized; however, the effectiveness of the wildlife corridor will be dependent on the implementation of appropriate measures to minimize human disturbances. There is a significant difference between the types of measures and amount of resources that will be required to effectively manage the wildlife corridor adjacent to residential development as compared to commercial development or passive recreational areas. Residential development typically results in a substantial increase in the probability of unauthorized access by humans and their pets and in the potential for introduction of non-native plants originating from residences. To ensure the proposed project will not preclude an effective wildlife corridor, we recommend the DSSEIR identify the allowable land uses adjacent to the corridor and the specific minimization measures and management requirements for each of the potential land uses.

A12-6

6. *Proposed Zoning Changes from Exclusive Agriculture (1.1) to Preservation (1.4)* – The proposed project will require elimination 13 acres of prime farmland to accommodate the relocated wildlife corridor. According to the DSSEIR, implementation of the Agricultural Legacy Program will mitigate the conversion of agricultural land to nonagricultural uses by allowing agricultural operations and programs on public lands within the City (page 1-22). Please clarify if the proposed revisions to the project will require additional open space in the

A12-7

[a] The Core Zone is approximately equivalent in area to the wildlife corridor identified in the DSSEIR.

City to be converted to agricultural uses and if this conversion has the potential to result in impacts to biological resources within the open space. In addition, please clarify if impacts associated with construction of the initial section of the wildlife corridor (east of Irvine Boulevard) have already been considered. Both the *Existing Zoning* (Figure 3-7) and *Proposed Zoning Changes* (Figure 3-8) identify the initial section of the corridor as Exclusive Agriculture (1.1). This section should be rezoned to Preservation (1.4).

A12-7 cont.

We appreciate the opportunity to comment on the subject DSSEIR and the City's efforts to coordinate with the Service on this important project. Should you have any questions, please contact Christine Medak of this office at 760-431-9440, extension 298.

Sincerely,

for Karen A. Goebel
Assistant Field Supervisor

Enclosure

cc:
Matt Chirdon, California Department of Fish and Game, San Diego, CA

U.S. Fish and Wildlife Service
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6010 Hidden Valley Road
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4949 Viewridge Avenue
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In Reply Refer To:
FWS/CDFG-OR-2630.2

Glen Worthington, Principal Planner
Community Development Department
City of Irvine
P.O. Box 19575
Irvine, California 92623-9575

APR - 3 2003

Re: Draft Environmental Impact Report for the Orange County Great Park Plan, County of Orange, California

Dear Mr. Worthington:

The United States Fish and Wildlife Service (Service) and the California Department of Fish and Game (Department)(collectively, the Wildlife Agencies) have reviewed the Draft Environmental Impact Report (DEIR) for the Orange County Great Park Plan. The DEIR was received on February 20, 2003. The project proposes the following components: 1) annexation, general plan amendment, and pre-zoning for the former Marine Corps Air Station (MCAS) El Toro (Planning Area #51); 2) annexation of the unincorporated portion of Planning Area #35 (James A. Musick Branch Jail and the Irvine Ranch Water District Parcel); and 3) general plan amendment and zone change for Planning Area #30 in the City of Irvine. The project includes approximately 4,806 acres in central Orange County, and is bounded by the City of Lake Forest to the south and southeast, the City of Irvine to the west and southwest, and County of Orange land to the north. The project would convert the MCAS El Toro site primarily into a multi-purpose park, educational center and habitat preserve, with portions of the site sold to developers to finance to the project. Separate California Environmental Quality Act (CEQA) documents would be required for the different project components.

The Service's primary mission is to "work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." Specifically, the Service administers the Endangered Species Act of 1973 (Act), as amended, and provides support to other Federal agencies in accordance with the provisions of the Fish and Wildlife Coordination Act. Section 7 of the Act requires Federal agencies to consult with the Service should it be determined that their actions may affect federally listed threatened or endangered species or their critical habitats. Section 9 of the Act prohibits the "take" (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife. Take incidental to otherwise lawful activities can be permitted under the provisions of section 7 (Federal consultations) and section 10 of the Act.

The Department is a Trustee Agency and a Responsible Agency pursuant to CEQA Sections 15386 and 15381, respectively. As a Trustee Agency, the Department must be consulted by the Lead Agency during the preparation and public review for project-specific CEQA documents. The Department reviews proposed projects, comments on their impacts, and determines whether the mitigation measures or alternatives proposed are feasible and appropriate. Pursuant to Section 1802 of the Fish and Game Code, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and habitat necessary for biologically sustainable populations of those species. The Department also administers the Natural Community Conservation Planning Program (NCCP) pursuant to Section 2800 *et seq.* of the Fish and Game Code.

The Wildlife Agencies are signatory to the Central/Coastal Orange County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which is a habitat conservation plan designed to provide for the long-term protection of a variety of habitat types and sensitive and federally listed species, while providing reasonable opportunities for development. The El Toro property is within the area addressed by the NCCP/HCP. The northeast portion of the El Toro site, most of which is mapped as "Habitat Preserve" in the DEIR, is within the Central/Coastal Orange County Nature Reserve System (Reserve). Under the NCCP/HCP, the Reserve is to be managed for the long-term protection of native habitats and wildlife. The City of Irvine is a participating jurisdiction in the NCCP/HCP.

Currently, the Wildlife Agencies are working with the U.S. Army Corps of Engineers, the County of Orange, The Irvine Company, and others to develop an aquatic-based regional permit (Special Area Management Plan/Master Streambed Alteration Agreement) that would include the El Toro property. A key element of that permit planning is to restore certain water courses while facilitating and improving necessary stormwater drainage facilities.

The Wildlife Agencies strongly support the City's plan to daylight streams that have been placed underground and commend its efforts to enhance wildlife connectivity in the region. Our primary concerns with respect to this project are: 1) ensuring that designated Reserve lands are managed consistent with the NCCP/HCP, 2) adequately addressing impacts to sensitive and listed species not addressed in the NCCP/HCP, and 3) providing recommendations to help the proposed wildlife corridor achieve its desired function.

Reserve System

An approximately 30-acre parcel southeast of the anticipated Alton Parkway extension was designated as Reserve land by the NCCP/HCP but would be converted to agriculture according to the DEIR. This parcel contains mature coastal sage scrub and is occupied by the federally threatened California gnatcatcher (*Polioptila californica californica*, "gnatcatcher"). Impacts to the gnatcatcher and other "covered species" associated with the Alton Parkway extension are authorized under the NCCP/HCP, but conversion of the area southeast of Alton Parkway to agriculture was not anticipated or authorized under the NCCP/HCP. For consistency with the NCCP/HCP, this parcel should be given a "Habitat Preserve" land use designation and should be conserved and managed consistent with NCCP/HCP guidelines for Reserve lands.

Sensitive and Listed Species Not Covered by the NCCP/HCP
Sensitive upland species that may be impacted by the proposed project but are not covered under the NCCP/HCP include the mountain plover (*Charadrius montanus*), burrowing owl (*Speotyto cunicularia*), and southern tarplant (*Hemizonia parryi*). A variety of sensitive riparian species, including the state- and federally endangered least Bell's vireo (*Vireo bellii pusillus*, "vireo") and southwestern willow flycatcher (*Empidonax traillii extimus*, "flycatcher") may be present along Serrano Creek, which could be affected by adjacent development or work associated with the proposed wildlife corridor.

The Service proposed the mountain plover as a threatened species on February 16, 1999 (64 FR 7587). Flocks of this species were recorded in open fields and crop lands within Orange County during Christmas bird counts from the 1950's through the 1980's, with substantial flocks associated with open fields and crop lands in the vicinity of Irvine (Hamilton and Willick 1996). The last consistent wintering locale for this species in Orange County was El Toro MCAS, where birds were last observed in 1986/1987 (Hamilton and Willick 1996). Since that observation, mountain plovers were seen twice in the 1990's at the Seal Beach National Wildlife Refuge and a single individual was noted in San Clemente (Hamilton and Willick 1996). Conversion of grassland habitat, agricultural practices, management of domestic livestock, and decline of native herbivores are factors that have contributed to the decline of the mountain plover.

The burrowing owl is a California Species of Special Concern that has experienced dramatic declines in Orange County in past decades for much the same reasons as the mountain plover (Hamilton and Willick 1996). Overwintering burrowing owl were observed on El Toro during a one-day biological evaluation in 1999 (Chambers Group 1999). Therefore, focused surveys for mountain plover and burrowing owl should be conducted, and if these species are observed, a plan should be developed to maintain and enhance habitat for the mountain plover and/or burrowing owl. The surveys and burrowing owl/mountain plover restoration plan should be completed and reviewed by the Wildlife Agencies before project-specific CEQA documents are released so that any minimization and mitigation measures can be incorporated into project planning.

The southern tarplant is a California Native Plant Society List 1B species (rare or endangered throughout its range) that has the potential to occur within the project site. Impacts to this species were not addressed by the NCCP. Therefore, we recommend that focused surveys be conducted for this species and any other sensitive plant species that may occur in the project area. If sensitive plant species would be impacted by the proposed project, an appropriate avoidance and mitigation plan should be completed and reviewed by the Wildlife Agencies before project-specific CEQA documents are released.

A detailed biological survey of the riparian habitat in the project area, including focused surveys for vireo and flycatcher, should be conducted prior to the release of CEQA documents for any project with the potential to affect riparian habitat or species. Appropriate minimization and mitigation measures should be incorporated into project-specific CEQA documents based on the results of the surveys. Under the NCCP/HCP, impacts to vireo and flycatcher are only covered when an appropriate mitigation plan is developed and when impacts are to habitat that the Service and Department determine to be of lesser long-term conservation value. Otherwise, potential impacts to

vireo and flycatcher must be addressed pursuant to section 7 or section 10 of the Act and section 2080 *et seq.* of the Fish and Game Code.

Chambers Group conducted a one-day habitat evaluation of the former MCAS El Toro in 1999, but prior to the release of project-specific CEQA documents, more detailed studies should be conducted to assess the conversion of specific habitat types and potential impacts to sensitive and listed species associated with particular projects.

Wildlife Corridor
We strongly support the City's efforts to increase connectivity between the central and coastal subregions of the Reserve. We recognize that a corridor between the central and coastal Reserve subregions was not a required element of the Reserve, but a well-designed corridor would increase Reserve functionality by allowing movement and dispersal of individuals and exchange of genetic material. Creating the proposed corridor would involve creating an earthen-bottomed stream channel from Irvine Boulevard to the Alton/Barranca Parkway intersection, where it would meet with the existing earthen-bottomed portion of Serrano Creek that runs from the Alton/Barranca intersection to the I-5/405 undercrossing. Flow in the stream channel would be provided by Borrego Canyon Wash, which is currently channelized south of Irvine Boulevard, and by Serrano Creek. The corridor is anticipated to be vegetated, which we strongly support, as it will provide wildlife cover and potential live-in habitat for wildlife in the area. As proposed, the corridor would be about 3 miles long, and animals utilizing the corridor will face several significant obstacles, including passing through the Alton/Barranca Parkway culvert and the I-5/405 undercrossing.

The Draft Irvine Wildlife Corridor Plan (Draft Corridor Plan) dated March 2003 outlines the creation of a wildlife corridor through the former MCAS El Toro. The Draft Corridor Plan proposes five zones within the corridor: 1) the Habitat Zone, which encompasses the proposed El Toro Wildlife Refuge; 2) the Core Zone, the primary corridor a minimum 300 feet in width intended for wildlife migration and habitat; 3) the Conservation Zone, which provides access for maintenance and biological research and allows placement of Natural Treatment System basins; 4) the Activity Zone, which allows open space and recreation uses and serves as a transitional zone from habitat to more developed areas; and 5) the Encroachment Zone, which includes portions of adjacent privately-owned parcels that abut the wildlife corridor. After review of the Draft Corridor Plan, we recommend that the following issues be considered:

- To increase the functionality of the Core Zone, we recommend that the combined width of the Core and Conservation Zones be substantially widened to an average of about 1000 feet for the length of the corridor. The County of San Diego's Multiple Species Conservation Plan (MSCP) has adopted a 1000 foot minimum width for major corridors that are necessary to support dispersal and live-in habitat for sensitive species. Animals that live within and move through a narrow corridor could be subject to indirect effects from adjacent uses, such as lighting and noise, which may hinder or even preclude use. A wider block of habitat would better buffer wildlife from the surrounding human activity, making it more attractive to potential dispersers and creating live-in habitat for avian/reptilian/amphibian species and small mammals. This habitat block would provide cover and resources, increasing the likelihood that dispersers will survive as they move through the area as well as provide

breeding/nesting areas for sensitive species such as vireo, flycatcher, and gnatcatcher. Additionally, the widening of the wildlife corridor on MCAS El Toro would allow the possibility for development of a corridor to move larger species through in the future.

- To provide buffering and further minimize edge effects from adjacent uses we recommend the inclusion of Conservation Zones along both sides of the corridor along the entire length. As proposed in the Draft Corridor Plan, these zones occur intermittently along the length of the corridor and are typically 30 to 300 feet wide. Because of the length of the corridor and the intensity of surrounding land uses, we recommend the Conservation Zones extend a minimum of 200 feet outward from the edge of the Core Zone along the length of the corridor. Any reduction in the zone should be limited to specific areas where other measures can be used to buffer the corridor.

- We recommend maintenance trails and access points be located outside the Core and, to the extent feasible, outside the Conservation Zones. Existing trails that can be rerouted outside these zones would be suitable for habitat restoration.

- A revegetation plan should be prepared that describes the methods that will be used to prepare the site, establish appropriate native species, control invasive non-native species, and achieve specific performance criteria. Also, we recommend the use of native landscaping outside of the golf course fairways and in other areas adjacent to the corridor to create cover and encourage wildlife movement through the area.

- The road-crossings represent some of the most serious obstacles to wildlife movement, as wildlife at these locations face potential mortality and are often directed through narrow undercrossings or culverts. Therefore, careful consideration should be given to the design of fencing to keep animals from entering roads and to direct animals to appropriate crossing areas (Crooks and Jones 1998, provide examples of fencing design near wildlife undercrossings).

- Because the existing underpass at the Alton/Barranca Road intersection is perhaps one of the most substantial constraints to wildlife movement (P&D 1999), modifications that increase its height and width and decrease its length should be considered. In addition, modifications to the I-5/405 undercrossing should be considered to allow more light into the culvert. If new roads are anticipated over the proposed wildlife corridor, undercrossings that minimize potential impacts to wildlife movement should be included in their design.

- Finally, because of the location of the proposed wildlife corridor within a highly urbanized area and the potential for long-term disturbance, and because the degree of success of modified wildlife corridors has rarely been monitored, we recommend monitoring, maintenance, and management of the corridor be addressed. These efforts could complement ongoing monitoring and management efforts undertaken by the Nature Reserve of Orange County (Crooks and Jones 1998, and Beier and Loe 1992, discuss monitoring of wildlife corridors).

Glen Worthington (FWS-OR-2630.2) 6

Again, we commend the City for its efforts to daylight under-grounded streams, create new riparian habitat, and enhance connectivity in the Reserve, and we look forward to coordinating on the development of the wildlife corridor plan. We appreciate the opportunity to comment on the DEIR for the Orange County Great Park Plan. If you have questions, please call Jonathan Snyder of the Service at (760) 431-9440 or Warren Wong of the Department at (858) 467-4249.

Sincerely,

Karen A. Goebel
Assistant Field Supervisor
U.S. Fish and Wildlife Service

William E. Tippets
Environmental Program Manager
California Department of Fish and Game

cc: State Clearinghouse

LITERATURE CITED

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A12. Response to Comments from Karen A. Goebel, Assistant Field Supervisor, FWS, dated August 30, 2012.

A12-1 The commentator correctly states that the DSSEIR's stated goal is the creation of a biologically effective wildlife corridor, references its March 2003 letter, and raises concerns about the increase in residential housing density in the 2012 Modified Project. Relocation of Segments 2 and 3 of the wildlife corridor feature from the location described in the 2011 Certified EIR to the east, adjacent to the existing Borrego Channel, will result in a Wildlife Corridor Feature that exhibits functions consistent with General Plan, Zoning Code, and the 2011 Certified EIR and subsequent environmental analysis, as well as a biologically effective wildlife corridor. The commentator request additional detail to determine if the Relocated Wildlife Corridor Feature can be designed to minimize disturbances associated with surrounding land uses in the proposed location in a manner that yields a biologically effective corridor. The Wildlife Corridor Plan ("WLC Plan"), included in the FSSEIR as Appendix C, provides the requested detail, and the WLC Plan was then assessed by a peer review panel of independent conservation ecologist and biologists with expertise in wildlife corridor issues and/or the target species ("Peer Reviewers"). The Peer Reviewers concluded the implementation of the WLC Plan, which includes a variety of project design features ("PDFs") described in more detail below to avoid and minimize edge effects and human generated disturbances, would result in a biologically effective wildlife corridor. See Appendix D of the WLC Plan.

A12-2 The commentator asks whether the 2012 Modified Project will continue to be subject to Special Development Requirements (SDRs) from a prior draft of the WLC Plan that minimize human intrusion. The WLC Plan discusses edge effects, including noise, light, and human intrusion, fuel modification, vegetation management and other maintenance related disturbance. The WLC Plan then specifies PDFs and other measures to avoid and minimize adverse impacts associated with these edge effects and activities. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor includes consideration of these PDFSs and other measures to minimize human related disturbances within the Relocated Wildlife Corridor Feature (WLCF). These PDFs replace the special development requirements in prior drafts of the WLC Plan to assure that the Relocated WLCF is biologically effective. The WLC Plan is proposed to be adopted by the City Council as part of the current entitlement process, and adjacent development will be reviewed by the City for consistency with the PDFs for edge effects and other applicable WLC Plan measures.

A12-3 The commentator expresses concern about potential light and noise impacts from adjacent development and requests additional information regarding maintenance activities, design features, and access roads that might be part of the Relocated WLCF. Section III of the WLC Plan discusses maintenance activities, design features, access within the Relocated WLCF, and potential light and noise impacts (also evaluated in Appendices A and B of the WLC Plan), and identifies PDFs to avoid and minimize noise intrusion and light intrusion. The WLC Plan also specifies design criteria for an unpaved access road within Segments 2 and 3 of the Relocated WLCF, and access will be from outside the wildlife corridor in Segments 3 South and

4. The WLC Plan describes the vegetation management activities that will occur within the Relocated WLCF as described in the Preliminary Fuel Management Plan attached as Appendix E to the WLC Plan ("Vegetation Management"). The majority of maintenance for fuel management purposes will occur within the 30-foot wide Special Maintenance Areas. These features and Vegetation Management activities, like all requirements of the WLC Plan, were evaluated by the Peer Reviewers in their review of the WLC Plan. The Peer Reviewers' conclusion in Appendix D of the WLC Plan that the implementation of the WLC Plan would result in a biologically effective wildlife corridor includes consideration of potential light and noise impacts from adjacent development and additional information regarding maintenance activities, design features, and access roads.

A12-4 The commentator requests additional information about the connectivity between Agua Chinon and the Relocated Wildlife Corridor Feature as compared to the wildlife corridor feature described in the 2011 Certified EIR. Segment 2 of the Relocated WLCF does not include a surface connection to the planned Agua Chinon. While the plan in the past graphically showed a connection between the WLCF and the southern portion of Agua Chinon, in fact, Segment 3 of the corridor which appeared to make that connection is bisected by a road, drainage improvements, and is not at the same grade as the southern portion of Agua Chinon. Prior WLCF graphics did not consider these topographical and engineering constraints in depicting a connection between Agua Chinon and the proposed Relocated WLCF. It is also important to note that it is likely undesirable to facilitate movement of wildlife from the Relocated WLCF into Agua Chinon because the northerly connection from Agua Chinon to open space in the northern preserve areas are constrained by existing, approved entitlements, which render any connection between Agua Chinon and the Relocated WLCF of questionable biological value. WLC Plan pp. 4-5. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor considered the need for a redundant connection through Agua Chinon and concluded that the connection was not needed for a biologically effective wildlife corridor.

The absence of a connection between Agua Chinon and the Relocated WLCF is not a physical or functional change from the Relocated WLCF under the 2011 Certified EIR. Although prior planning documents for the wildlife corridor (e.g., the 2011 Certified EIR and the 2004 Wildlife Corridor Plan) graphically depict a connection between the southern section of Segment 2 and the restored Agua Chinon, this connection was constrained as discussed above.

In addition, pursuant to the 2011 Certified EIR, a planned road separated the restored Agua Chinon and the Wildlife Corridor Feature. There was no hydrological connection between the restored Agua Chinon channel and the low flow channel planned for the wildlife corridor and the potential upland connection was insufficient to effectively promote movement, and consisted solely of an Orange County Flood Control box culvert and entrance facility pursuant to the San Diego Creek Master Plan of Drainage – Planning Area 51/30 for Bee Canyon, Agua Chinon, Borrego, Serrano and Upper San Diego Creek (Approved 2008, Amended 2011), located

approximately 20 feet below grade. The Relocated WLCF is biologically effective without a surface connection to Agua Chinon.

Notwithstanding the lack of surface connection, birds, including the two avian target species, are expected to be able to reach the Agua Chinon corridor.

A12-5 The commentator asks that the Relocated WLCF not include fuel modification zones to ensure that disturbances to wildlife and spreading of non-native species be minimized, and also requests that special planting and maintenance requirements that are acceptable to Orange County Fire Authority (OCFA) be identified in the plan to the extent that low fuel planting and Vegetation Management within the Relocated WLCF will continue (to protect public safety). The WLC Plan specifies plant palettes and required Vegetation Management within the Relocated WLCF that are acceptable to OCFA. See Appendices C and E of the WLC Plan. The WLC Plan further identifies special vegetation maintenance requirements, including maximum cover requirements for certain plant species that will trigger vegetation thinning within identified Special Maintenance Areas that are 30-feet wide within the corridor. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor includes consideration of the planned and described Vegetation Management measures. The Peer Reviewers do not expect that this activity will adversely affect the biological effectiveness of the Relocated WLCF or its use by the target species.

A12-6 The commentator has asked for assurances that the uses that will be located adjacent to the Relocated WLCF, in particular the potential for human disturbance, unauthorized access, and light and noise intrusion, will not negatively affect the wildlife and vegetation. The WLC Plan includes PDFs and other measures to limit light, noise and human intrusion. The Peer Reviewers' considered these PDFs and other measures along with the potential land uses specified adjacent to the Relocated WLCF, and concluded that the implementation of the WLC Plan would result in a biologically effective wildlife corridor after considering the potential for noise, light and human disturbance to negatively affect the wildlife and vegetation. As noted in Response USFWS A12-3 above, the Relocated WLCF is planned to incorporate light and noise limits, berms, screening plantings, native scrub and riparian vegetation, etc. that limit potential impacts associated with adjacent residential development. In addition, other features such as impermeable fencing (to keep wildlife within the corridor and to keep humans and household pets out), will ensure that impacts associated with adjacent residential development are minimized. These measures are similar to the previously proposed SDRs. The WLC Plan, which is attached as Appendix C of the FSSEIR, contains these design guidelines.

A12-7 The commentator asks whether the rezoning of 13 acres from 1.1 Agriculture to 1.4 Preservation will result in the conversion of additional agricultural land within Irvine. As discussed extensively on pages 5.2-5 to 5.2-6 of the DSSEIR, the long-term viability of agriculture in Orange County is rapidly declining, though the City has identified certain parcels that are conducive to continued agricultural production. The 13-acre parcel is not one that was identified as viable in the City's agricultural legacy program. Further, based on a Land Evaluation and Site Assessment analysis,

adjacent land uses, and the possibility of sustained agricultural development on the site, no significant impacts to agriculture would result from the rezoning.

The commentator also asks whether construction of Segment 1 of the Relocated WLCF has been analyzed and indicates that it should be rezoned to 1.4 Preservation. The construction of Segment 1 is the same as was contemplated in the WLCF described in the 2003 OCGP EIR, and its construction was analyzed in the 2003 OCGP EIR and the plans analyzed under CEQA as part of the Alton HMMP, which was approved by the Service and Department of Fish and Wildlife. Segment 1 is owned by the County of Orange and is not part of the 2012 Modified Project area. Segment 1 is required to be placed under a conservation easement by a Section 404 permit and Section 1602 streambed alteration agreement, as described in the Updated Habitat Mitigation and Monitoring Program for the Alton Parkway Extension Project (BonTerra 2011). Segment 1 will be preserved as set forth in the Alton HMMP and as required by the Section 404 permit and Section 1602 streambed alteration agreement, but that land is not owned by the City or the applicant, and therefore cannot be rezoned as a part of the current project.

LETTER A13 – California Department of Fish and Game (CDFG) (4 pages)

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
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EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

September 5, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
City of Irvine Community Development Department
PO Box 19575
Irvine, CA 92623-9575
Email: bcurtis@ci.irvine.ca.us

Subject: Comments on the Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project 2012 General Plan Amendment and Zone Change, City of Irvine, SCH No. 2002101020

Dear Mr. Curtis:

The Department of Fish and Game (Department) has reviewed the above-referenced Draft Second Supplemental Environmental Impact Report (DSSEIR) for the Heritage Fields Project 2012 General Plan Amendment and Zone Change. The comments provided herein are based on information provided in the DSSEIR and associated documents, our knowledge of sensitive and declining vegetation communities in the County of Orange, and our participation in regional conservation planning efforts. The Department met with representatives from the City of Irvine (City), Orange County Great Park, Heritage Fields El Toro LLC., and the U.S. Fish and Wildlife Service on August 23rd, 2012, to discuss aspects of the above-mentioned project. The Department appreciates the willingness of the City to accept comments for this DSSEIR until September 7, 2012.

The Department is a Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act [CEQA] Guidelines §15386) and a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) and other sections of the Fish and Game Code. The Department also administers the Natural Community Conservation Planning (NCCP) program. The City participates in the NCCP program by implementing its approved Central/Coastal Orange County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). A13-1

The proposed project (Project) is located in the City of Irvine in Orange County, California. The Project is located in the Heritage Fields Development consisting of existing land use zoning into nine development districts consisting of Districts 1-8 and a portion of the Orange County Great Park (OCGP) known as the "Sports Park District". Other land uses within the Project Area are an 11 acre parcel owned by the Transportation Corridor Agencies (TCA) (referred to as TCA Parcel), Lots D, E, F (referred to as City Parcels), 132 acres zoned for preservation to be a wildlife corridor (Approved Wildlife Corridor). All of the Heritage Field Development is located in within areas designated by City as Existing Planning Area (PA) 30 and PA 51.

Between 2003 and 2011, the City authorized the "2011 Approved Project" that includes residential and non-residential development (including Approved Wildlife Corridor) in existing PA 51 and PA 30. This Project would modify the 2011 Approved Project by:

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(1) Combining Existing PA 30 and 51 and TCA Parcel, into a single PA that would be designated "Combined PA 51";

(2) Rezoning property designated Transit Oriented Development, Vehicle Related Commercial, and General Industrial to Trails and Transit Oriented Development;

(3) Relocating the Approved Wildlife Corridor;

(4) Rezoning 13 acres of approved Agriculture to Preservation to accommodated relocated wildlife corridor;

(5) Rezoning City Parcels from Transit Oriented Development to Trails and Transit Oriented Development;

(6) Updating the City's General Plan land use and zoning for TCA Parcel to OCGP;

(7) Amending the City's Mater Plan of Arterial Highways to eliminate the extension of Rockfield Boulevard from the eastern boundary of the Project Site to Marine Way;

(8) Modifying General Plan Objective B-1 to identify certain locations in Combined PA 51 where traffic level of service E may be acceptable.

A13-1 cont'd

The Project proposes to relocate certain portions of the Approved Wildlife Corridor. The Approved Wildlife Corridor is a design feature included in the OCGP Master Plan that connects established habitat preserve areas in the central and coastal subareas of the NCCP/HCP, and is intended to provide habitat for, and facilitate movement of four target species: bobcat (*Lynx rufus*), coyote (*Canis latrans*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*). The Approved Wildlife Corridor is comprised of five "segments." Segment 1 is located north of Irvine Boulevard, Segments 2 through 5 are located within Existing PA 30 and PA 51. The County of Orange is currently constructing Segment 1. Segments 2 and 3, which the 2012 "Modified" Project proposes to relocate, consist of 132 acres of land owned by the City.

The Department offers the following comments and recommendations to assist the City in avoiding, minimizing, and adequately mitigating potential Project impacts on biological resources.

1. The Department believes the relocation of the Approved Wildlife Corridor to the east along Borrego Canyon Wash has the potential to significantly disturb wildlife movement, breeding, foraging, and sheltering because of incompatible land-use and maintenance requirements within the wildlife corridor. The DSSEIR fails to analyze and disclose all direct and reasonably foreseeable indirect impacts on the environment caused by the proposed changes in the Project. Consequently, the DSSEIR level of analysis regarding potential land-use effects on biological resources may likely be insufficient to provide the decision making body with the information needed to make an informed decision regarding environmental effects of Project (CEQA Guidelines §15151).

A13-2

The Department does not concur with the DSSEIR analysis regarding effects to riparian habitat. The Department understands the Approved Wildlife Corridor would be built to support occupation or "live-in" habitat for a variety of species utilizing riparian habitat in addition to wildlife movement (Orange County 2011). Amending the General Plan zoning adjacent to the

A13-3

wildlife corridor to permit residential housing has the potential to significantly disturb wildlife and drastically effect the management of the wildlife corridor for movement and breeding, shelter, and forage opportunities for wildlife. A13-3 cont'd

The Project would substantially increase human disturbance impacts adjacent to the wildlife corridor by permitting residential housing resulting in substantial fuel modification of proposed habitat in the corridor (DSSEIR pg. 3-22). The DSSEIR proposes Project Design Features (PDF) 10-1 and PDF 10-2, as measures to reduce fuel modification impacts and edge effects on biological resources. These are new measures not previously incorporated into the 2011 Approved Project. However, based on the disclosure in the DSSEIR the Department cannot determine the extent and severity of the fuel modification or edge effects. The Department believes that without mitigation fuel modification and edge effects are substantial and adverse to wildlife movement and occupation. A13-4

A. PDF 10-1 specifies that plant species planted in the corridor would need to be approved by Orange County Fire Authority and maintenance of the resulting habitats for fire control may occur. The Department recommends that the final environmental document quantify and display on a map the amount of corridor subject to fuel modification, analyze the potential fuel modification effects on wildlife, identify the entity responsible for the maintenance, timeframe for when the maintenance would occur, what standards the fuel reduction activities would need to achieve compliance, and methodology used to conduct assessment and monitor the plant communities in the wildlife corridor. A13-5

B. PDF 10-2 specifies that appropriate edge characteristics will be implemented as necessary to reduce visibility and human access to the corridor. Edge effects include increased ambient nighttime light, noise, and non-target pesticide poisoning. These substantially adverse impacts would be potentially significant without mitigation. Thus, PDF 10-2 is an ineffective measure because it does not commit to avoidance, reduction, objective performance criteria, identify who is responsible, how edge characteristics would be monitored, or when conformance would need to occur. The Department recommends the final environmental document analyze and disclose all of these issues. A13-6

Fuel modification and edge effects in the Approved Wildlife Corridor are **new** impacts, but the DSSEIR does not disclose substantial information to support why fuel modification and edge effects, are less than significant without mitigation. Instead it proposes ineffective PDF(s) for abovementioned effects that in light of the whole record are new and significant on function of the wildlife corridor. For these reasons, the Department recommends the City re-circulate the DSSEIR or consider subsequent environmental review pursuant to CEQA guidelines section 15162(a)(1). Intended uses of DSSEIR include subsequent discretionary and ministerial actions (DSSEIR pg. 3-35) that are dependent on substantial zoning changes proposed in DSSEIR. The subsequent actions authorized by proposed zoning changes may reasonably result in substantial adverse impacts to biological resources, and pursuant to CEQA guidelines section 15088.5(a)(1) recirculation is required when a significant new environmental impact would result from a project. A13-7

2. The Department does not concur with the DSSEIR's determination that "…no significant impacts to drainage patterns would occur within the 2012 Modified Project as compared to the 2011 Approved Project" (see Initial Study question 9(c)). Segment 1 of the Approved Wildlife Corridor is currently under construction, and is designed to discharge up to 78 cubic feet per second of surface water flows (Orange County 2011) to Segment 2. This volume was designated for an approximate 2% longitudinal slope to be continuous from Segment 2 A13-8

to 5. Ephemeral streams have significantly higher width to depth ratio than perennial streams allowing them to discharge erosive forces across a wide flood plain at a shallower depth along unstable flow paths. The proposed straightening of the stream may likely exacerbate incision that naturally occurs when adjacent development of impervious surfaces reduces erosion/sedimentation rates (as would occur as part of Project). The potential effect of streambed incision is potentially significant and can result in episodic bank failure, the need for bank armoring, and riparian habitat loss. This effect along with a constant longitudinal slope could result in a significant effect on the environment that is not addressed in the DSSEIR.

A13-8 cont'd

Accordingly, the final environmental document should analyze the relocated corridor's effects on hydrology, hydraulics (i.e. velocity), and stream length/sinuosity. Currently, the DSSEIR only discloses hydrology analysis comparison for Project versus 2011 Approved Project (DSSEIR Appendix E) and states that the corridor would contain the same area (132 acres) as the 2011 Approved Project.

The Department also recommends the City require a buffer adjacent to the wildlife corridor to reduce substantial adverse effects from residential, commercial, and transit land uses (the 2011 Approved Project incorporated open space adjacent to wildlife corridor). The size of the buffer should depend on the adjacent land use, and potential mitigation measures instituted within the buffer. A buffer would allow greatest flexibility in wildlife corridor design and sustainability over time to facilitate natural erosional processes and unstable channel forms.

A13-9

The Department appreciates the opportunity to comment on the DSSEIR. Please contact Mr. Matthew Chirdon at (858) 467-4284 or via e-mail at Mchirdon@dfg.ca.gov for additional questions or coordination regarding the Project.

Sincerely,

Stephen M. Juarez
Environmental Program Manager
South Coast Region

ec: Christine Medak, USFWS, Carlsbad
State Clearinghouse, Sacramento

REFERENCE:
County of Orange. Public Works. Final Habitat Mitigation Monitoring Program Alton Parkway Extension Project. Orange County Public Works Santa Ana, California, [May 27, 2011]. pp. 8-1, 47.

A13. Response to Comments from Stephen M. Juarez, Environmental Program Manager, South Coast Region, State of California – The Natural Resources Agency, Department of Fish and Game, dated September 5, 2012.

A13-1 The commentator provides general comments about its agency and the project description. No response is necessary. Please note that the commentator properly describes the location of the segments addressed by the project. However, the segment numbering scheme is adjusted for clarity in the wildlife corridor plan ("WLC Plan") set forth in Appendix C of the FSSEIR.

A13-2 The commentator raises concerns regarding the relocation of the wildlife corridor feature ("WLCF") to the east along Borrego Canyon Wash that it has "the potential to significantly disturb wildlife movement, breeding, foraging, and sheltering because of incompatible land-use and maintenance requirements within the wildlife corridor." In response to commentator's concerns, and in coordination with the City of Irvine ("City"), the Orange County Great Park Corporation ("OCGPC"), and Conservation Groups (Laguna Greenbelt, Inc., Endangered Habitats League, The Natural Resources Defense Council, and Friends of Harbors, Beaches, and Parks), the applicant prepared a wildlife corridor plan ("WLC Plan") for the Relocated Wildlife Corridor Feature. Further, the WLC Plan, included in Appendix C of the FSSEIR, was peer reviewed by a panel of experts ("Peer Reviewers") to determine its biological effectiveness. See Appendix D of the WLC Plan. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor included consideration of potential effects to wildlife movement, breeding, foraging, and sheltering because of incompatible land-use and maintenance requirements within the wildlife corridor, as well as the measures specified by the WLC Plan to address the potential effects. Relocation of the wildlife corridor feature from the location described in the 2011 Certified EIR to the east, adjacent to the existing Borrego Channel results in a Wildlife Corridor Feature that is not only biologically effective, but also exhibits functions consistent with General Plan, Zoning Code, and the 2011 Certified EIR and subsequent environmental analysis. Direct and reasonably foreseeable indirect impacts of construction of the Relocated Wildlife Corridor feature are discussed in Chapter 8 of the DSSEIR (pp. 8-16 to 8-21).

A13-3 The commentator states that it "does not concur with the DSSEIR analysis regarding the effects to riparian habitat." There is currently no channel, and thus no riparian habitat, in Segments 2 and 3, so implementation of the 2012 Modified Project would not impact existing riparian habitat in this area. Channel maintenance within Segment 2 of the Relocated Willdife Corridor Feature is expected to be less than the level anticipated in prior versions of the plan because the anticipated 100 year flow in Segment 2 from Segment 1 whould be spread across 150 to 200 feet and is not expected to require flowline stabilization. Due to the large drainage area available within Segment 2 and design limitations on flows tributary to the planned channel, the anticipated flows would be approximately 6 to 8 inches in depth, and would not be considered erosive or disruptive.

Prior plans for the wildlife corridor included riparian planting in Segment 3, which would have transferred water between watersheds or have it double back into Borrego Channel, which is not feasible since topography would not have allowed such a design without excessive grading and recontouring of that segment. The Wildlife Corridor 2011 Design Concept Update recognized these constraints and recommended that this segment be planted as uplands, as it is in the Relocated Wildlife Corridor Feasture.

Segments 3-South and 4 of the Relocated Wildlife Corridor Feature are substantially unchanged as compared to the wildlife corridor feature analyzed in the 2011 Certified EIR, including the amount and location of riparian habitat.

Therefore, the DSSEIR properly concludes on page 8-19 that impacts to riparian would not change relative to previous authorizations:

The Relocated Wildlife Corridor Feature does not change the amount of land designated for habitat preserve or the ownership of such land. Therefore, no additional impacts on any riparian habitat or other sensitive natural community are associated with the 2012 Modified Project, including the Relocated Wildlife Corridor Feature, as compared to the 2011 Approved Project.

The measures identified in the WLC Plan also include specific performance standards to ensure that effects associated with adjacent residential development on riparian habitat are minimized.

The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor included consideration of the amount of anticipated riparian habitat to be created, the degree to which "live in" habitat would be created for a variety of species utilizing riparian habitat, and the potential effects of adjacent residential housing and housing related vegetation maintenance requirement on riparian areas.

A13-4 The commentator states that the DSSEIR did not sufficiently analyze potential fuel modification impacts and edge effects. The WLC Plan includes discussion of vegetation management for fire control purposes, including a Fire Related Program (Appendix C of the WLC Plan) and the Preliminary Fuel Management Plan (Appendix E of the WLC Plan) and specifies project design features to minimize effects of required maintenance, including the specification of a special maintenance areas of limited widths for vegetation management, and generous native vegetation cover specifications to assure establishment of habitat conducive to nesting and breeding of gnatcatchers, least Bell's vireo and cactus wren. The WLC Plan also includes a discussion of human intrusion and other edge effects within the Relocated Wildlife Corridor Feature, and it specifies design features with identified performance standards to minimize such impacts, including light and noise intrusion minimization measures, screening vegetation and berming to protect wildlife within the corridor feature, and impermeable fencing of the corridor feature's boundaries. The WLC Plan further explains why the Relocated Wildlife Corridor Feature as designed is expected to be used by the target species for movement, shelter, foraging

and nesting. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor included consideration of vegetation management for fire control and potential edge effects from existing and future planned development.

A13-5 The commentator states that the SSEIR should include additional detail regarding fuel modification zones and maintenance and monitoring procedures displayed on a map, along with standards for fuel reduction. The WLC Plan provides additional detail as requested, and Peer Reviewers have concluded that with the project design features ("PDFs") specified for fuel modification impacts and edge effects, no substantial adverse impacts on wildlife movement in, or occupation of the Relocated Wildlife Corridor Feature would occur.

A13-6 The commentator raises concerns regarding the effectiveness of PDF 10-2 with respect to edge conditions. The WLC Plan discusses new PDFs that minimize edge effects for light and noise, impermeable fencing to limit human access, and berms and screening vegetation, as well as a measure to protect line of sight for bobcats to reduce visibility of humans and anthropogenic improvements and activities. The commentator also raises questions about the potential for "non-target pesticide poisoning" from outside the corridor. This potential danger does not exist due to protection of the feature from adjacent usage of pesticides by the screening berms and other setbacks specified in the WLC Plan, including those along the Borrego and Serrano Creek Channels, which provide substantial separation along the eastern boundary of Segments 2, 3, and 3 South of the Relocated Wildlife Corridor Feature.

A13-7 The commentator claims that "fuel modification and edge effects in the [wildlife corridor feature described in the 2011 Certified EIR] are new impacts, but the DSSEIR does not disclose substantial information to support why fuel modification and edge effects, are less than significant without mitigation." The commentator's statement addresses the wildlife corridor feature described in the 2011 Certified EIR, which has already been analyzed in previously certified environmental documentation. Consequently, those analyses are now beyond challenge. (Pub. Res. Code § 21167.2; Laurel Heights Improvement Assn. of San Francisco, Inc. v. The Regents of the University of California (1993) 6 Cal.4th 1112, 1130 ["Laurel Heights II"].) The WLC Plan discusses edge effects and vegetation management within the WLCF, and specifies PDFs previously described in prior wildlife corridor feature plans and the 2011 Certified EIR (see Response to CDFG A13-6) that must be implemented and are sufficient to avoid, minimize and mitigate edge effects and vegetation management impacts to a level that is less than significant. The Peer Reviewers' conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor included consideration of edge conditions and vegetation management, as well as consideration of the degree to which measures specified as PDFs would be effective.

With respect to the recirculation recommendation, CEQA requires recirculation of a Draft EIR only when "significant new information" is added to a Draft EIR after public notice of the availability of the Draft EIR has occurred (refer to California Public Resources Code Section 21092.1 and CEQA Guidelines Section 15088.5),

but before the EIR is certified. Section 15088.5 of the CEQA Guidelines specifically states:

New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. 'Significant new information' requiring recirculation includes, for example, a disclosure showing that:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

CEQA Guidelines Section 15088.5 also provides that "[r]ecirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR... A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

The issue in any given case is whether the information added is significant, and the lead agency's decision to recirculate or not will be upheld if supported by substantial evidence (Laurel Heights II, supra, 6 Cal.4th at pp. 1134-1135). In Laurel Heights II, supra, pp. 1129-1130, the California Supreme Court answered that question in general terms, as follows:

> [T]he addition of new information to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement…. [R]ecirculation is not required where the new information added to the EIR 'merely clarifies or amplifies … or makes insignificant modifications in… an adequate EIR.
>
> (Italics in original; emphasis added.) The California Supreme Court gave several examples of new information that would be considered significant, including a new significant impact resulting from the

> project, and a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a less than significant level (6 Cal.4th at p. 1130), neither of which applies here.

The commentator has not identified any new significant information as defined by CEQA Guidelines Section 15088.5 that would require recirculation of the SSEIR. The wildlife corridor feature described in the 2011 Certified EIR has been a component of the 2011 Approved Project since the first development was analyzed in the 2003 OCGP EIR and approved in May 2003; only Segments 2 and 3 of the corridor are being relocated by the 2012 Modified Project. With respect to fuel modification, see Responses to CDFG Comment A13-5 and A13-6. With respect to edge effects, see Responses to CDFG A13-4, A13-5 and A13-6.

Moreover, the information provided in the WLC Plan (Appendix C) is not new information requiring recirculation, but is merely clarifying or amplifying information regarding the wildlife corridor provided in direct response to the requests and suggestions of the Resources Agencies and Conservation Groups. Typical of many developments, and indeed typical of this development in particular, details and designs are developed over time as planning for approved development proceeds and market conditions change. With the 2012 Modified Project's proposal for a definite location for the Relocated Wildlife Corridor Feature, rather than a conceptual location, the preparation of a more detailed WLC Plan has been completed, and the plan is proposed to be adopted as part of this entitlement process. See Response to CDFG A13-2, above.

A13-8 The commentator disagrees with the DSSEIR's conclusion that no significant impacts to drainage would occur. Based upon a hydrology, hydraulics and stream stability analysis, the design for a preliminary graded section for Segment 2 considered the flows (up to 78 cfs) from Segment 1. Hydrological /hydraulic conditions for the Relocated Wildlife Corridor Feature are discussed further in the WLC Plan. In fact, creating a stable natural bottom drainage corridor in Segment 2 was an important goal of the WLC Plan, and was a primary reason for reducing the flows that were proposed for the wildlife corridor feature described in the 2003 OCGP EIR. Future engineering, stream stability analysis and sediment transport studies for Segment 2 will further refine the optimal longitudinal slope, but a sufficiently wide channel area has been provided, and sufficient limitations on tributary flows have been provided to assure that based on currently hydrology, hydraulics and stream stability analysis, no substantial erosive forces are anticipated within Segments 2, 3 or 3 south, and no incision, episodic bank failure, recurrent riparian habitat loss, or need for armoring has been identified. Future engineering analyses prepared for grading and construction will confirm the hydrology and sediment transport conclusions relied upon in evaluating the WLC Plan, taking into consideration the plant growth that will occur, width and depth of flows anticipated to be associated with various storm events, and the potential for erosive forces both locally (particularly at planned corridor crossings) and downstream.

A13-9 The commentator requests that the City require a buffer between the Relocated Wildlife Corridor and adjacent development. The Peer Reviewers conclusion that the implementation of the WLC Plan would result in a biologically effective wildlife corridor included consideration of the need for a buffer in addition to other specified PDFs to minimize potential edge effects. The WLCF uses design criteria and performance standards to buffer the Relocated WLCF and to minimize edge effects. Relocating Segment 2 and a portion of Segment 3 of the wildlife corridor feature described in the 2011 Certified EIR to the east, adjacent to the existing Borrego Channel, will result in a Relocated Wildlife Corridor Feature with a width that ranges from approximately 485 to 1,100 feet (average width of over 600 feet). The Relocated Wildlife Corridor Feature is adjacent to Borrego Channel on the east, so no adjacent development would occur on the east side that would need buffering. Moreover, the WLCF contains earthen berms, native screening plantings, light and noise minimization measures, impermeable fencing, protections for bobcat line of site, and similar measures would limit potential disruption of corridor functions. Peer Reviewers determined that additional buffering is unnecessary to produce a biologically effective corridor.

LETTER A14 – Saddleback Unified School District (SVUSD) (4 pages)

HERITAGE FIELDS PROJECT 2012 SECOND SUPPLEMENTAL EIR
School Questionnaire – Saddleback Valley Unified School District

1. **Please list the names and locations of the elementary, middle and high school campuses that would serve the Proposed Project, their approximate distance to the Proposed Project, and the level of service at which they are presently operating (student capacity compared to current enrollment).**

Item	Rancho Canada Elementary School	Santiago Elementary School	Olivewood Elementary School	Serrano Intermediate School	El Toro High School
Distance from Heritage Fields	2.5 Miles	2.5 Miles	2.5 Miles	1.75 Miles	2.5 Miles
School Capacity	728	576	552	1,807	2,986
School Enrollment	727	601	521	1,367	2,743
Excess/(Shortage) of Capacity	1	(25)	31	440	243

As noted above, the schools in closest proximity to the Proposed Project, with the exception of Serrano Intermediate School, are operating near or above capacity meaning expansion of these existing facilities would be necessary to provide capacity for students from the Proposed Project. If adequate funding is not available to provide facilities in close proximity to the Proposed Project, there is the potential for significant environmental impacts in the form of traffic, noise, and pollution. Even with expansion, housing students from the Proposed Project at these facilities will have an impact on traffic and the existing communities surrounding the facilities. A14-1

2. **Are there any existing shortages in the amount of classroom, athletic, recreational or other facilities available to serve the current number of students? If shortages exist, what is the basis for determining those shortages?**

- Rancho Canada is currently at capacity. Additional classroom space will be needed in the future.
- Santiago is currently over capacity.
- Olivewood is near is maximum capacity. Additional classroom space will be needed in the future.
- New residential development could necessitate the need for additional classroom space at El Toro High School.

As student capacity is expanded, the core facilities of some or all of these schools may require improvements and expansion as well. For example, multipurpose rooms, libraries, computer labs, performing arts centers, gyms, and other ancillary facilities will need to be evaluated to ensure they can support growth in student enrollment. Additionally, the School District will need to plan for expansion in such a way that the growth in building space does not encroach upon outdoor recreational facilities.

Page **1** of **4**

HERITAGE FIELDS PROJECT 2012 SECOND SUPPLEMENTAL EIR
School Questionnaire – Saddleback Valley Unified School District

3. **Please indicate your student generation rates and project the number of elementary school, middle school, and high school students that will be generated by the 2012 Modified Project. It is anticipated that up to 1,500 single-family attached units and 500 multi-family units or 2,400 single-family attached and 600 multi-family units could be located within SVUSD boundaries.**

School Level	Single Family Detached Rates	Multi-family Attached Rates
Elementary School	0.2458	0.2937
Intermediate School	0.0830	0.0773
High School	0.1971	0.1671

School Level	Students (Option 1)[1]	Students (Option 2)[2]
Elementary School	516	766
Intermediate School	163	246
High School	379	573

[1] Option 1 consists of 1,500 SFD units and 500 MFA units
[2] Option 2 consists of 2,400 SFD units and 600 MFA units

A14-1 cont'd.

It should be noted that the student generation rates identified above were calculated on the basis of all residential units currently existing in the School District. Due to enrollment trends in the existing housing stock, the rates listed above may understate the potential enrollment that could be generated from new residential development that typically attracts families with school aged children.

4. **What school impact fees, if any, do you currently charge?**

Residential School Fee - $3.20/square foot
Commercial/Industrial School Fee - $0.51/square foot

As noted in the Residential and Commercial/Industrial Development School Fee Justification Studies dated April 26, 2012, these fees do not fully mitigate the impact that new residential and commercial/industrial construction has on the facilities of the School District.

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HERITAGE FIELDS PROJECT 2012 SECOND SUPPLEMENTAL EIR
School Questionnaire – Saddleback Valley Unified School District

5. **The 2012 Modified Project includes up to 1,800 multi-family dwelling units within SVUSD service boundary. Will the 2012 Modified Project create a need for the expansion of or changes in staffing or facilities, including classrooms, athletic equipment, athletic fields, library space, pools or other educational or recreational facilities? How are new facilities funded?**

School Level	Students from 1,800 MFA Units
Elementary School	529
Intermediate School	139
High School	301

The three elementary schools which could serve Heritage Fields do not have sufficient capacity to house students to be generated from existing residential units and students who could be produced from new residential units within Heritage Fields. The enrollment of El Toro High School will exceed its student capacity and additional classroom space will be needed. Serrano Intermediate School currently has the ability to house additional students, but may need additional classroom space in the future.

6. **What impact will the 2012 Modified Project, in combination with all the other development projects in the area, have on SVUSD's ability to provide adequate school services and facilities to this project and other projects in the same attendance areas?**

A14-1 cont'd.

As suggested by the question, the Proposed Project is not the only development within the boundaries of the School District that will have an impact on its ability to provide adequate facilities for its students. The Proposed Project, therefore, cannot be looked at in a vacuum and must be seen as part of the larger amount of development that is planned.

The table below lists those planned and proposed residential projects that are in the same area as the Proposed Project.

Development	SFD Units	MFA Units
Serrano Summit	608	0
The Pinnacle at Serrano Highlands	85	0
Baker Ranch	1,056	1,323
Total	**1,749**	**1,323**

Please note that the residential projects identified above are to each be served by Serrano Intermediate School and El Toro High School. Based on the generation rates identified previously, these three residential developments are projected to produce the following student enrollment.

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HERITAGE FIELDS PROJECT 2012 SECOND SUPPLEMENTAL EIR
School Questionnaire – Saddleback Valley Unified School District

School Level	Students from Additional Residential Development
Elementary School[1]	N/A
Intermediate School	247
High School	566

[1] Please note that these additional residential developments are not served by the three elementary school attendance areas identified in question 1, therefore elementary students projected to be generated from these developments were not calculated

Based on the numbers above, the cumulative impacts on Serrano Intermediate School and El Toro High School from the Proposed Project and the other planned developments would put these facilities well over their current or desired capacities. These impacts, unless mitigated, could produce significant negative environmental impacts.

7. **Please add any comments you may wish to make regarding the 2012 Modified Project.**

Unless properly mitigated, the Proposed Project will have a significant adverse impact on the facilities of the School District and the ability of the School District to adequately house all school-age children. These impacts will result in negative environmental impacts as well in the form of traffic, noise and pollution from the transportation of students from their homes to campuses with capacity. There will also be an economic toll on the School District due to this transportation requirement if busing is required in order to properly house students. The School District would welcome the opportunity to work with the applicant for the Proposed Project to ensure that adequate school facilities can be provided. This will not only ensure the success of the School District in educating students but also the success of the Proposed Project in attracting residents to a community where schools and education are a valued component.

A14-1 cont'd.

Response Prepared By:

Name **Title**

Agency **Date**

Page **4** of **4**

A14. Response to Comments from Saddleback Valley Unified School District (SVUSD), dated September 5, 2012.

A14-1 The following portions of Chapter 5.10, *Public Services*, have been revised to be consistent with service provider correspondence sent by Saddleback Unified School District (SVUSD) on September 5, 2012. However, it should be noted that the correspondence simply provided new information and was not intended to comment on the DSSEIR. The updated information provided below does not change any of the conclusions in the DSSEIR. Mitigation of school impacts to SVUSD would be satisfied through payment of SB50 fees.

Page 5.10-13:

Saddleback Valley Unified School District (SVUSD)

A portion of the Proposed Project Site is served by SVUSD. There are currently 35 schools in SVUSD, including 24 elementary schools, four intermediate schools, four high schools, one continuation high school, one independent study high school, and one special education school (SVUSD 2012). The enrollment of SVUSD schools that are nearest the Proposed Project Site is shown in Table 5.10-6.

Table 5.10-6
Capacity of SVUSD Schools Nearest to the Proposed Project Site

School Name	Grade Level	Current Enrollment (~~2010-2011~~2012)[1]	Current Capacity[~~2~~1]	Current Open Seats
Elementary School				
Olivewood Elementary School	K-6	521	552	31
Rancho Canada Elem. School	K-6	673727	880728	2071
Santiago Elementary School	K-6	601	576	-25
Middle School				
Serrano Intermediate	7-8	1,3811,367	1,3301,807	-51440
High School				
El Toro HS	9-12	2,8332,743	2,4752,986	-358243

Sources:
[1] SVUSD 2012~~a~~
[2] ~~2003 OCGP EIR~~

~~Despite the current lack of available seats at Serrano Intermediate School and El Toro High School, the SVUSD is currently experiencing a multi-year decline in student enrollment. This decline has impaired the District's ability to maintain its current level of service and could result in staff reductions and school closures (SVUSD 2012b). However, if the schools were to remain open and staff levels were to remain the same, the decline in student enrollment represents available capacity for existing SVUSD schools to accommodate additional students in the future.~~ With the exception of Serrano Intermediate School, schools in the SVUSD nearest to the Proposed Project Site are currently operating near or above their current capacity. Expansion of these existing facilities would therefore likely be necessary upon implementation of the 2012 Modified Project.

Page 5.10-14:

- ***Level 1 Fee:*** Education Code Section 17620 provides the basic authority for school districts to levy fees against construction for purposes of funding construction or reconstruction of school facilities, subject to limits set forth in Government Code Section 65995. Fees are charged based on "assessable space" – which includes all of the square footage within the perimeter of a structure. The determination of the assessable space within the perimeter of a structure would be made by the City, in accordance with the City's building standards. ~~Effective May 7, 2012, t~~ The Level 1 fee for new residential development within the IUSD and SVUSD is $3.20 per square foot. The fee for commercial/industrial development within the IUSD and SVUSD is $0.51 per square foot. ~~The Level 1 fee for new residential development with the SVUSD is also $2.97 per square foot. The fee for commercial/industrial development within the SVUSD is $0.47 per square foot.~~ (City of Irvine 2012, May; SVUSD 2012)

Page 5.10-16:

Development of 4,606 additional dwelling units (or 5,806 additional dwelling units with the optional conversion) under the 2012 Modified Project would generate school-age children who would require school services and facilities from IUSD and SVUSD, above those that would be needed to serve the 2011 Approved Project. Using districtwide student generation rates, the 2012 Modified Project would generate approximately 875 to 1,053 additional students in the IUSD and approximately ~~492~~1,078 to ~~738~~1,616 additional students in the SVUSD compared to the 2011 Approved Project. Using IUSD school needs analysis student generation rates, the 2012 Modified Project would generate approximately 818 to 836 additional students in the IUSD compared to the 2011 Approved Project. The projected additional student population under the 2012 Modified Project is identified in Tables 5.10-8a, 5.10-8b, 5.10-9a, and 5.10-9b

Page 5.10-19:

Table 5.10-9a
2012 Modified Project Student Generation – SVUSD
(Scenario 3)

Grade Level	Dwelling Unit Type	Maximum Additional Units[1]	Districtwide Student Generation Rate (student per dwelling unit)[2]	Projected Additional Students
K-6	Detached	0	~~0.34~~0.2458	0
	Attached	2,000	~~0.10~~0.2937	200588
	Subtotal	**2,000**	—	**~~200~~588**
7-8	Detached	0	~~0.065~~0.0830	0
	Attached	2,000	~~0.046~~0.0773	~~92~~155
	Subtotal	**2,000**	—	**~~92~~155**
9-12	Detached	0	~~0.16~~0.1971	0
	Attached	2,000	~~0.10~~0.1671	200335
	Subtotal	**2,000**	—	**~~200~~335**
	TOTAL	**2,000**	—	**~~492~~1,078**

~~SFD = single family detached~~
~~SFA = single family attached~~
~~MF = multifamily~~
[1] The exact number of dwelling units in each school district is unknown. The numbers and types of dwelling units analyzed in this table represent a plausible scenario for units developed within SVUSD boundaries on the Proposed Project Site.
[2] Source: ~~2003 OCGP EIR~~SVUSD 2012

Table 5.10-9b
2012 Modified Project Student Generation – SVUSD
(Scenario 4)

Grade Level	Dwelling Unit Type	Maximum Additional Units[1]	Districtwide Student Generation Rate (student per dwelling unit)[2]	Projected Additional Students
K-6	Detached	0	~~0.34~~0.2458	0
	Attached	3,000	~~0.10~~0.2937	300882
	Subtotal	**3,000**	—	**~~300~~882**
7-8	Detached	0	~~0.065~~0.0830	0
	Attached	3,000	~~0.046~~0.0773	138232
	Subtotal	**3,000**	—	**~~138~~232**
9-12	Detached	0	~~0.16~~0.1971	0
	Attached	3,000	~~0.10~~0.1671	300502
	Subtotal	**3,000**	—	**~~300~~502**
	TOTAL	**3,000**	—	**~~738~~1,616**

~~SFD = single family detached~~
~~SFA = single family attached~~
~~MF = multifamily~~
[1] The exact number of dwelling units in each school district is unknown. The numbers and types of dwelling units analyzed in this table represent a plausible scenario for units developed within SVUSD boundaries on the Proposed Project Site.
[2] Source: ~~2003 OCGP EIR~~SVUSD 2012

Page 5.10-20:

SVUSD

~~The current multi-year decline in SVUSD student enrollment represents the potential for existing SVUSD schools to accommodate additional students generated by the 2012 Modified Project.~~ Although the SVUSD can accommodate some student growth generated by the 2012 Modified Project, SVUSD schools cannot accommodate all of the students projected to be generated by the 2012 Modified Project. The need for additional services is addressed through compliance with school impact fee assessment. SB 50 (Chapter 407 of Statutes of 1998) sets forth a state school facilities construction program that includes restrictions on a local jurisdiction's ability to condition a project on mitigation of a project's impacts on school facilities in excess of fees set forth in Education Code Section 17620. These fees are collected by school districts at the time of issuance of building permits for commercial, industrial, and residential projects. The Level 1 fee for new residential development with the SVUSD is ~~$2.97~~$3.20 per square foot. The fee for commercial/industrial development within the SVUSD is ~~$0.47~~$0.51 per square foot. Service provider correspondence from SVUSD indicates that impact fees would "not fully mitigate" impacts caused by construction of new residential and commercial/industrial uses (SVUSD 2012). However, according to state law, ~~With payment of the SB 50 Fees,~~ no significant impacts to the SVUSD ~~will~~ would result from implementation of the 2012 Modified Project upon payment of SB 50 fees. This topic is discussed further in Section 5.10.3.5, *Cumulative Impacts*, below.

LETTER A15 – City of Laguna Beach (46 pages)

September 7, 2012

VIA E-MAIL AND U.S. MAIL

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Re: Comments Regarding DSSEIR for Heritage Fields 2012 - General Plan Amendment and Zone Change (SCH #2002101020)

The City of Laguna Beach ("Laguna Beach") offers the following comments regarding the Draft Second Supplemental Environmental Impact Report ("DSSEIR") prepared for the proposed modifications to the Heritage Fields project ("Project"). The Project involves, among other things, a massive shift of approved non-residential development uses in the Great Park area to residential uses. As explained more fully below, the DSSEIR prepared for the Project does not comply with the requirements of the California Environmental Quality Act ("CEQA").[1]

While we have noticed problems with other sections of the DSSEIR, the comments herein place special emphasis on those sections that address potentially significant impacts that would most affect Laguna Beach: Transportation, Recreation, and secondary effects associated with increased traffic and demand for recreation facilities. These secondary effects include increased demand for limited parking, increased demand for police, fire and lifeguard services, and the related strains on Laguna Beach's limited facilities and resources. Laguna Beach is also concerned that the proposed relocation of a wildlife corridor in the Project area may directly and indirectly impact the Laguna Coast Wilderness Park and open space areas surrounding Laguna Beach. These open space areas are precious resources that Laguna Beach residents have generously funded through special taxes. A15-1

Below, after a brief summary of legal requirements governing Environmental Impact Report (EIR) preparation, we present our general comments and our more specific comments organized according to resource category. The general comments address analytical flaws that pervade the DSSEIR, while the specific comments address errors in individual analyses. These comments demonstrate that the City of Irvine ("Irvine") may not approve the Project until an adequate revised DSSEIR is prepared and is recirculated for public review and comment.[2]

[1] / Pub. Resources Code, § 21000, et seq. and the CEQA Guidelines (Cal. Code Regs., tit. 14, ch. 3), § 15000 et seq.

[2] / *See* CEQA Guidelines, § 15088.5.

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residential development and proposed, approved and built commercial and industrial development. The analysis of cumulative land use impacts must therefore be revised to consider the Project's consistency with built, approved, and pending non-residential uses in the Great Park area. A15-13 cont'd.

B. Section 5.9 – Population and Housing

The discussion of housing prices in Irvine suggests a persistent problem: an inadequate supply of affordable housing.[55] The impact analysis portion of the Section 5.9 refers to the General Plan Housing Element as setting forth policies that will promote the development of affordable housing within the Great Park area.[56] Earlier in the section, however, the DSSEIR notes that the Housing Element must be revised to address and accommodate the Southern California Association of Government's most recent affordable housing targets. For Irvine's Housing Ordinance to be effective as advertised, it must set forth a performance standard for meeting the affordable housing targets set by the RHNA. Because the analysis does not provide enough information regarding the actual affordability of the so-called "affordable" residential units that will be allowed with this Project, there is no substantial evidence supporting the conclusions that the impacts would be less than significant and that mitigation is therefore not required.[57] A15-14a

Furthermore, if there is no assurance that a significant percentage of the new residential units in the Great Park area will be affordable, then the DSSEIR assumptions concerning the "trip capture" efficiencies achieved by locating residential uses near Great Park area employers may be misplaced. Please explain how the increased housing provided by the Project will be sufficiently affordable to employees Great Park area, such that the asserted efficiencies will be achieved. A15-14b

C. Section 5.11 – Recreation

The Recreation section does not determine whether the park facilities proposed as part of the Great Park will be adequate to serve the contemplated amount of existing and additional residential development in the areas of Irvine that will be served by the Great Park facilities. While the DSSEIR acknowledges "the project would generate a need for a total 47.46 acres of community parkland and 41.34 acres of neighborhood parkland" (without the optional conversion)[58], this amount of parkland would only be sufficient to address the recreation needs of a portion of the additional residents the Project will add to the Great Park area. As discussed in more detail below, the Great Park area population will actually be much larger that assumed in the Recreation section analysis. The analysis also fails to address the existing deficiency of recreational facilities within Irvine generally. A15-15

[55] / *See* DSSEIR, p. 5.9-5

[56] / *Id.* at pp. 5.9-5, 5.9-9

[57] / *Id.* at p. 5.9-10

[58] / *Id.* at p. 5.11-10 – 5.11-11.

the reader must attempt to ferret out this information from a complex morass of prior analysis. The lengthy analysis is far from concise or clear, as required.

- The DSSEIR also does not clearly explain the need for and consequences of the series of changes and refinements to development plans for the Great Park that precipitated the multiple addenda to the 2003 PEIR. At a minimum, the DSSEIR should have explained, in a straightforward manner, what specifically has been changed from the development plan associated with the original Great Park project analyzed in the 2003 PEIR. A15-2c

- The DSSEIR also does not succinctly describe the proposed changes to the Heritage Fields project approved last year or explain the need for these changes. Instead, the DSSEIR vaguely describes the changes from the 2011 Supplemental EIR for Heritage Fields, without any explanation concerning the rationale or justification for these changes and leaves it up to the reader to try to figure out the many details concerning Great Park and Heritage Fields project modifications. A15-2d

These pervasive problems seriously undermine any assertion that the DSSEIR satisfies the CEQA requirement that an EIR provide the public, neighboring jurisdictions, and decision makers with sufficient information and good faith disclosure of a project's impacts. A15-2e

Second, Irvine failed to analyze all of the Project's impacts. The DSSEIR does not even describe all of the Project's features, and it presents a generalized analysis of many potentially significant impacts and conclusory statements concerning the negligible net effect of substituting one land use for another and the effectiveness of vague mitigation measures.

Third, Irvine impermissibly limited its alternatives analysis. The DSSEIR relies on an arbitrarily narrow purpose and needs statement and fails to consider modifications to each alternative that could substantially reduce impacts. Irvine should consider an alternative that would not increase the approved overall cap on residential development. A15-2f

For these reasons, and as further explained below, the DSSEIR precludes a meaningful analysis of the Project's impacts and the means devised to avoid or reduce them. Irvine must therefore revise the DSSEIR and recirculate the revised DSSEIR for public review and comment before making any decisions concerning the Project. A15-2g

II. General Comments

A. Irvine Failed to Adequately Consult with Laguna Beach and with Other Neighboring Jurisdictions and Failed to Make All Information Relied Upon in the DSSEIR Reasonably Available to Public Agencies and the Public. A15-3a

For all projects of statewide, regional, or area wide significance, lead agencies must consult with public agencies which have transportation facilities that could be affected by the

project.[12] Lead agencies must provide these agencies with all environmental documents pertaining to the project and consultation must be conducted in the same manner as for responsible agencies and shall be for the purpose of the lead agency obtaining information concerning the project's effect on major arterials and public transit within the consulted agencies' jurisdiction. In addition, for projects that propose a General Plan Amendment, California Government Code Section 65352(a)(1) directs lead agencies to consult with "a city or county, within or abutting the area covered by the proposal."

Irvine provided responsible and neighboring agencies and the interested public very little opportunity to consider and influence the scope of the DSSEIR's analysis. The NOP for the DSSEIR was issued on April 3, 2012, and the only public scoping meeting for the DSSEIR was held, approximately two weeks later, on April 19, 2012.[13] A15-3a cont'd.

Unfortunately, Irvine did not consult with Laguna Beach when it prepared the DSSEIR. If it had so consulted, as required under CEQA, the DSSEIR may have adequately considered the Project's impacts to Laguna Beach. Rather than reach out to Laguna Beach when the DSSEIR was being prepared, Irvine provided its neighbor only the bare minimum notice *after* it released the DSSEIR for public review. While Laguna Beach appreciates the 14-day extension to the 45-day comment period for the DSSEIR, this extension of the public review and comment period is no substitute for early agency consultation and adequate notice – especially when it comes to a Project of this magnitude. Laguna Beach strenuously objects to this lack of consultation and adequate notice

Irvine also failed to provide relevant information, including supporting technical analysis and reports, to Laguna Beach in a timely manner. Public Resources Code section 21003.1 requires that information relevant to the significant effects of a project be made available as soon as possible to the general public and other public agencies. Other sections of the CEQA statute and CEQA Guidelines echo this requirement.[14] The disc containing the DSSEIR, which Irvine provided to Laguna Beach only upon its request, did not contain all of the information necessary for Laguna Beach to review the traffic impact analysis; specifically, the sub-appendices to Appendix I were not included. On August 22, 2012, upon its request, Laguna Beach received the sub-appendices to Appendix I of the DSSEIR, leaving the City only eleven business days to review these materials and prepare and submit its comments by the new comment deadline, September 7, 2012. A15-3b

The DSSEIR does not explain what efforts were made, if any, to consult with Laguna Beach, even though it is obvious that this Project could adversely affect this neighboring city's transportation facilities. Irvine staff has claimed that notice/consultation with Laguna Beach was

[12] / Pub. Resources Code, § 21092.4 ["For a project of statewide, regional, or areawide significance, the lead agency shall consult with transportation planning agencies and public agencies that have transportation facilities within their jurisdictions that could be affected by the project"]; *see also* CEQA Guidelines, §§ 15086(a)(5), 15206.

[13] / DSSEIR, pp. 2-2 – 2-3.

[14] / *See* Pub. Resources Code, § 21061; CEQA Guidelines, §§ 15147, 15148, 15150.

not required because Laguna Beach is "not an adjacent City to Irvine."[15] This narrow view of consultation and notice requirements is not consistent with CEQA's broad requirements. A15-3b cont'd.

B. The DSSEIR Does Not Adequately Tier Off of or Incorporate by Reference the Analysis of the Great Park PEIR, the Eight Addenda to the PEIR and the Supplemental EIR.

The analytical process known as "tiering" allows a lead agency to prepare a series of EIRs (or negative declarations), moving from general, regional concerns to more site-specific considerations with the preparation of each new document.[16] "Tiering" refers to "the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared."[17] "When an EIR incorporates an earlier environmental document by reference, 'the incorporated part of the referenced document shall be briefly summarized where possible' and '[t]he relationship between the incorporated part of the referenced document and the EIR shall be described.'"[18] A15-4a

The DSSEIR does not state that it tiers off of any prior EIRs, but, for all practical purposes, that is what it has done. The DSSEIR supposedly relies on the analyses of a first-tier environmental review document, the Programmatic EIR for the Great Park ("PEIR"), and eight addenda to the PEIR, as well as the 2011 Supplemental EIR for the Heritage Fields project.[19] The DSSEIR does not clearly explain, however, how the addenda updated or otherwise changed the analysis from the 2003 PEIR for the Great Park, nor does the DSSEIR consistently or clearly explain how its analysis relies upon these previously prepared documents. With thousands of pages of background analysis to sift through, and thousands of pages of project-level analysis and technical reports to review, the public is left to wonder how this document fits into the overall analytical structure of this complicated and muddled tiering approach.

This attempt at incorporation by reference (and implicit tiering) fails to satisfy CEQA's requirements. "When an EIR uses tiering or incorporation, it must give the reader a better road map to the information it intends to convey."[20] A15-4b

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[15] / Barry Curtis email to Ann Larson dated July 13, 2012.

[16] / Pub. Resources Code, §§ 21068.5, 21093, 21094; CEQA Guidelines, §§ 15152, 15385.

[17] / *Endangered Habitats League, Inc. v. State Water Resources Control Bd.* (1997) 63 Cal.App.4th 227, 236; *see also In re Bay–Delta Etc.* (2008) 43 Cal.4th 1143, 1173 ["Future environmental documents may incorporate by reference general discussions from the broader EIR, but a separate EIR is required for later projects that may cause significant environmental effects inadequately addressed in the earlier report"], citing Guidelines, § 15152, subds. (a) & (f).

[18] / *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 443 (*Vineyard Area Citizens*), quoting CEQA Guidelines, § 15150, subd. (c).

[19] / *See* DSSEIR, pp. 2-5 – 2-6.

[20] / *Vineyard Area Citizens*, *supra*, 40 Cal.4th at p. 443, citing CEQA Guidelines, § 15150, 15153.

> The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. "[I]nformation 'scattered here and there in EIR appendices,' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis. . . .[21]

A15-4b cont'd.

The DSSEIR does not provide the required summary of issues discussed in the first-tier PEIR and the addenda and supplemental EIR, nor does it adequately incorporate by reference the analysis from these documents.

The DSSEIR also fails to acknowledge that Irvine previously found the Great Park project as a whole would have significant and unavoidable impacts, requiring a Statement of Overriding Considerations.[22] CEQA requires the Authority to squarely address the Project's contribution to these significant and unavoidable impacts.[23] By concluding that many impacts will be mitigated to less-than-significant levels, without acknowledging and addressing the significant and unavoidable impacts associated with the Great Park and the original Heritage Fields project, the DSSEIR obscures impacts rather than reveals them. The PEIR identified significant and unavoidable impacts in the areas of Air Quality, Traffic, Population and Housing and Agricultural Resources. The 2012 DSSEIR only identifies air quality and traffic impacts as potentially significant and unavoidable (and traffic impacts will only be considered significant and unavoidable if the mitigation measures proposed for impacts to facilities in other jurisdictions are not implemented).[24] The DSSEIR indicates that the Irvine City Council will need to adopt a Statement of Overriding Considerations for significant impacts that cannot be mitigated,[25] but it fails to address the Project's contribution to previously acknowledged significant and unavoidable impacts.

A15-4c

C. The Baseline for Analyzing Environmental Impacts is Improper.

The determination of existing (or baseline) conditions is an important aspect of an EIR because, without an adequate baseline description, an accurate analysis of a project's impacts and the development of proper mitigation measures may be impossible.[26] The determination of

A15-5

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[21] / *Id.* at p. 442, quoting *California Oak Foundation v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1239.

[22] / *Compare* DSSEIR, Ch. 6 [silent with respect to the significant and unavoidable impacts associated with the Great Park] *with* PEIR, pp. 7-18.

[23] / *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 124-125 (*CBE*) ["Even though a prior EIR's *analysis* of environmental effects may be subject to being incorporated in a later EIR for a later, more specific project, the responsible public officials must still go on the record and explain specifically why they are approving the later project despite *its* significant unavoidable impacts"]; see also *People v. County of Kern* (1974) 39 Cal.App.3d 830, 842 [CEQA serves important function of ensuring that "the environmental and economic values of [the agency's] elected and appointed officials" are fully disclosed to the public].

[24] / DSSEIR, p. 2-5.

[25] / *Id.* at p. 1-2.

[26] / *Save Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 120-124 (*Save Our Peninsula*).

existing environmental conditions is an important aspect of an EIR because, without an adequate description of the environmental setting, it is impossible to conduct an accurate analysis of a project's impacts and to develop sufficient mitigation measures and project alternatives.[27] "CEQA requires that the preparers of the EIR conduct the investigation and obtain documentation to support a determination of pre-existing conditions. [Citation.] This is a crucial function of the EIR."[28]

According to the DSSEIR, the baseline for analyzing environmental impacts is the planned development associated with all project approvals for the Great Park and Heritage Fields through October 2011.[29] This environmental baseline includes all of the development approved in connection with the 2003 PEIR, the eight Addenda and the 2011 SEIR, even though none of this approved development has actually been built. This hypothetical environmental baseline violates CEQA. The DSSEIR should have instead used existing conditions on the ground, as of the date the NOP was issued, as the environmental baseline.[30] Alternatively, Irvine could possibly use the project analyzed in the 2003 PEIR as a hypothetical baseline, but it would need to justify, with supporting substantial evidence, this departure from the normal baseline specified in CEQA Guidelines section 15125.[31]

A15-5 cont'd.

To make matters worse, the traffic impact analysis uses a different baseline.[32] This lack of clarity and consistency regarding the baseline further exacerbates the DSSEIR's failure to provide accurate and relevant baseline information to the public.

D. The DSSEIR Fails to Provide Relevant Background Information

A15-6a

The DSSEIR refers to past Great Park project approvals that allowed residential development intensity to be moved from approved locations to "locations depicted on the

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[27] / *See Save Our Peninsula*, *supra*, 87 Cal.App.4th at pp. 120-124.

[28] / *Id.* at p. 122, citation omitted.

[29] / DSSEIR, pp. 2-1 – 2-2. October 2011 was when the eighth Addendum of the 2003 PEIR was approved.

[30] / *See* CEQA Guidelines, § 15125; *see also Communities For A Better Environment v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 320-21.

> A long line of Court of Appeal decisions holds ... that the impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis, rather than to allowable conditions defined by a plan or regulatory framework. This line of authority includes cases where a plan or regulation allowed for greater development or more intense activity than had so far actually occurred, as well as cases where actual development or activity had, by the time CEQA analysis was begun, already exceeded that allowed under the existing regulations. In each of these decisions, the appellate court concluded the baseline for CEQA analysis must be the "existing physical conditions in the affected area" [citation], that is, the "'real conditions on the ground'" [citations], rather than the level of development or activity that could or should have been present according to a plan or regulation.

[31] / *See Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2012) 205 Cal.App.4th 552 ["in a proper case, and when supported by substantial evidence, use of projected conditions may be an appropriate way to measure the environmental impacts that a project will have on traffic, air quality and greenhouse gas emissions"], as modified (May 9, 2012), review granted and opinion superseded, (Cal. 2012) 145 Cal.Rptr.3d 514.

[32] / Compare DSSEIR, pp. 1-1 & 2-2 with 5.12-9 – 5.12-10; *see also* Traffic Study, at pp. 1-2, 1-9, 2-2.

Vesting Tentative Tract Maps ('VTTMs')." However, the DSSEIR fails to describe where this development intensity would be located under the existing approvals and where it would be moved to under the proposed Project. Without a clear depiction of this basic information concerning the approved Great Park project, it is very difficult to determine what physical changes the Modified Project includes and how those changes could impact Laguna Beach and other neighboring jurisdictions. A15-6a cont'd.

The DSSEIR also does not explain why Project modifications and a second supplemental EIR are even necessary. The NOP indicates that the developer applied for changes to the Project only a few months after the Irvine City Council approved the original Heritage Fields project. Initiating environmental review for substantial changes to the original project so soon after this approval implicates the prohibition against piece-meal environmental review. Thus, Irvine must explain why the changes are necessary, and why they were not reasonably foreseeable when the original project was analyzed in the first Supplemental EIR. A15-6b

E. The DSSEIR Fails to Consider the Whole of the Action

The DSSEIR neglects to evaluate the whole of the proposed Project. Under CEQA, a project is defined as "the whole of the action" that may result in either a direct or reasonably foreseeable indirect physical change to the environment."[33] This broad definition of "project" is intended to maximize protection of the environment.[34] In performing its analysis, a lead agency must not "piecemeal" or "segment" a project by splitting it into two or more Projects. This approach ensures "that environmental considerations do not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences."[35]

1. <u>The DSSEIR Fails to Adequately Address the Transformation of the Great Park from a Public Recreation Resource Into an Area of Intensive Infill Development.</u> A15-7a

The DSSEIR does not present the environmental impacts of the entire project because the impacts have been considered incrementally over many changes made to the Great Park project since 2003, thus minimizing the true impacts through separate piecemeal analysis. The DSSEIR does not specifically address these impacts, but instead ignores them by considering many of the changes to the 2003 Great Park project as part of the environmental baseline. This decade-long pattern of chopping the numerous modifications to the Great Park development plan into many segments epitomizes one version of the piece mealing problem.[36]

For example, the DSSEIR fails to address the overall impacts to recreation, public services and recreational weekend traffic that will occur as a result of adding thousands of A15-7b

[33] / CEQA Guidelines, § 15378, subd. (a); Pub. Resources Code, § 21065.

[34] / *McQueen v. Bd. of Directors of the Midpeninsula Regional Open Space Dist.* (1988) 202 Cal.App.3d 1136, 1143; *Tuolumne County Citizens for Responsible Growth v. City of Sonora* (2007) 155 Cal.App.4th 1214, 1227.

[35] / *Burbank-Glendale-Pasadena Airport Authority v. Hensler* (1991) 233 Cal.App.3d 577, 592; *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283-284 [same].

[36] / *See Arviv Enterprises, Inc. v. South Valley Area Planning Commission* (2002) 101 Cal.App.4th 1333, 1349-1350.

residential units to the Great Park with limited public recreation facilities in the area to serve them. The additional residents of the Great Park and surrounding neighborhoods will travel to Laguna Beach where there is shopping, downtown experiences and abundant recreational facilities and opportunities. The prior EIR documents contemplated more recreational, commercial and industrial uses for the Great Park, which would not generate nearly this level of significant impacts to Laguna Beach. The Project will increase the residential cap in the Great Park by thousands of units, thereby exacerbating the problem already created by previous development projects within the Great Park area. As such, the DSSEIR impermissibly piecemeals environmental review for the Project as a whole.

A15-7b cont'd.

2. The DSSEIR May Have Ignored Future Foreseeable General Plan Amendments.

While the DSSEIR purports to analyze the impacts of raising the cap for residential units by almost 5,000 units, plus density bonus units, it fails to consider the possibility that the 10,700-unit cap will be increased through subsequent General Plan amendments (similar to the successive General Plan amendments that have previously allowed additional residential projects in the Irvine Business Complex, despite its early absolute cap). The DSSEIR should state whether Irvine intends this residential cap for the Great Park to be absolute, and if so, what mechanism will prevent future transfers of development intensity to residential uses.

A15-8

If additional residential units are foreseeable, the DSSEIR must analyze the impacts that would be caused by those units. The DSSEIR should also describe environmental review requirements for future General Plan amendments and should identify performance standards and mitigation measures that will apply to any future projects.

3. The DSSEIR Fails to Consider the Impacts from Any Other General Plan and Zoning Modifications Associated with the Project, Including Relocating the Wildlife Movement Corridor.

The project description includes general plan and zoning modifications -- called "other modifications as necessary to implement the 2012 Modified Project"[37] -- that are so general that it could include virtually anything. Without knowing what these modifications are, it is impossible to consider what the impacts might be. For example, these modifications could include the new Wildlife Corridor Plan, which Irvine staff has indicated is a separate aspect of the relocation of the Wildlife Corridor. This new Plan must be included as part of the Project description if it is necessary to implement the 2012 Modified Project.[38] The project description must be revised to include all proposed changes necessary to implement the 2012 Modified Project and be made available for public comment during the recirculated DSSEIR's review period.

A15-9

[37] / *See* DSSEIR, p. 3-31.

[38] / See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 732 (*San Joaquin Raptor I*) [wastewater treatment plant was necessary element of project and should have been considered in EIR].

F. The DSSEIR Fails to Analyze the Impacts of the Conversion of Non-residential Development Intensity to Residential Uses.

Residential uses have different impacts than nonresidential uses. For example, traffic intensity and patterns differ with residential uses. Residential uses also increase demand for recreational facilities and impact public services such as parking, police, fire and marine safety. Irvine must comprehensively analyze the impacts associated with the proposed major shift of non-residential to residential uses, particularly as they affect nearby cities such as Laguna Beach. The DSSEIR, while serving as the only environmental review document for a plan that calls for an intensive increase in residential uses within the Great Park area, fails to provide this analysis. A15-10a

The DSSEIR states that the General Plan Land Use Element would be amended to increase the proposed residential development cap from 4,894 dwelling units to between 9,500 to 10,700 units for the Great Park area and a corresponding "offsetting" reduction of nonresidential uses between 500,000 to 1 million square feet.[39] While the DSSEIR acknowledges that the Project involves increasing the residential development cap through the reallocation of permitted development intensity within the Great Park area,[40] it fails to acknowledge this development intensity will result in new significant impacts.

The DSSEIR also fails to disclose the Project's increase to previously disclosed significant and unavoidable impacts. The 2003 PEIR concluded that development to the allowed intensity would result in significant and unavoidable impacts to air quality, agriculture and population and housing and cumulative traffic, and the Irvine City Council acknowledged these impacts in a Statement of Overriding Considerations.[41] Since that time, Irvine has largely ignored these significant and unavoidable impacts, treating them as irrelevant to subsequent environmental impact analyses. The DSSEIR repeats this flawed approach.[42] The Heritage Fields Project proposes to add up to 5,806 dwelling units on top of the 4,894 units already approved, which is an increase of 7,075 new dwelling units from the original 2003 project, with no new significant unavoidable impacts identified in the DSSEIR and no explanation of how prior significant unavoidable impacts have been mitigated to less than significant, if indeed they were. A15-10b

The DSSEIR's analysis for future years (interim year 2015 and buildout post-2030) reallocates theoretical development intensity from reduced non-residential development, thereby offsetting the actual development intensity that the increased residential development will generate.[43] By permitting increased residential development to more than 10,000 units, however,

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[39] / DSSEIR, pp. 3-14 to 3-16.

[40] / *Id.* at pp. 1-6, 3-10.

[41] / *See* Resolution 03-60, Findings and SOC for Great Park project, pp. 102-119.

[42] / *See, e.g.*, DSSEIR, pp. 3-10 – 3-14 [describing multiple amendments that would not result in additional significant and unavoidable impacts] *see also id.* at pp. 5.12-8 – 5.12-9 [references to prior traffic studies and the approved development intensity for Great Park, with no mention of significant and unavoidable traffic impacts].

[43] / *Id.* at pp. 5.12-34 – 5.12-34.

with only a relatively small reduction of non-residential intensity, the Project is contributing to both an overall increase and a major shift in traffic in the Great Park area and region. A15-10c

Even though Irvine relies on this reallocation of development intensity to find the Project would have minimal population/housing and agriculture impacts, the DSSEIR fails to describe the earlier analysis of the overall cap in the Great Park area PEIR (the only comprehensive analysis of this level of development intensity that Irvine has prepared). Nor does the DSSEIR acknowledge that Irvine had previously found the overall development intensity would have significant and unavoidable impacts, requiring a Statement of Overriding Considerations. CEQA requires Irvine to squarely address the Project's contribution to these significant and unavoidable impacts.[44] By asserting that the proposed additional residential development will be "offset" by reduced nonresidential development, without acknowledging and addressing the significant and unavoidable impacts associated with already approved development intensity, the DSSEIR perpetuates an approach designed to obscure impacts rather than reveal them. A15-10d

G. The DSSEIR's Assumptions Regarding Jobs/Housing Balance and Trip Capture are Not Supported by Substantial Evidence.

The DSSEIR's analysis of Project impacts relies on unsupported assumptions concerning the jobs/housing balance that will be achieved through increased residential development and a high level of "trip capture" that will occur through mixed-use development.[45] These assumptions must be specifically described in the DSSEIR and must be supported by evidence and analysis, not bare conclusions. A15-11

The DSSEIR, for example, does not provide an analysis concerning the median salary of Great Park area employees for the purpose of determining the degree to which the expected selling/rental prices for proposed Great Park area residential units will be affordable to Great Park area employees. In addition, the DSSEIR does not provide any data or evidence supporting the assertion that the proposed mix of uses in the Great Park area will reduce vehicle miles travelled ("VMT") through "trip capture." While mixed-use development *may* provide these benefits, the DSSEIR's analysis must provide a quantitative analysis that demonstrates the degree to which these benefits will be realized.

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[44] / *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 124-125 (*CBE*) ["Even though a prior EIR's *analysis* of environmental effects may be subject to being incorporated in a later EIR for a later, more specific project, the responsible public officials must still go on the record and explain specifically why they are approving the later project despite *its* significant unavoidable impacts"]; see also *People v. County of Kern* (1974) 39 Cal.App.3d 830, 842 [CEQA serves important function of ensuring that "the environmental and economic values of [the agency's] elected and appointed officials" are fully disclosed to the public].

[45] / DSSEIR, p. 1-13 [describing Project Design Feature ("PDF") 4-2]; *see also id.* at p. 5.4-15 [it was assumed that there would be only a 25 percent reduction in VMT" through trip capture]; 5.4-24 [Table 5.4-5 describing consistency with PPP 4-9]; *see also* Appendix I to DSSEIR, Traffic Impact Analysis ("Traffic Study"), p. 3-7, Table 3-1, fn. 2 ["AM and PM peak hour rates have been adjusted based upon assumptions for different uses within the Great Park"].

H. The DSSEIR's Analysis of Cumulative Impacts is Deficient.

"[I]t is vitally important that an EIR avoid minimizing the cumulative impacts. Rather, it must reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about them."[46] In general, the poorer the quality of the existing environment, the more likely it is that a project's incremental contribution to future cumulative conditions will be significant (i.e., "cumulatively considerable").[47]

The DSSEIR must evaluate the cumulative effects of the Project in light of the various "closely related past, present, and reasonably foreseeable probable future projects" to ensure that all cumulatively significant environmental effects resulting from the Project are adequately identified and mitigated.[48] The DSSEIR purports to take into consideration the cumulative impacts of past, present and future Great Park area projects.[49] The brief discussion of other projects, however, does not provide detailed information regarding the numerous projects considered in the analysis. The cumulative project list in Section 4.5 of the DSSEIR provides project titles, with no project description (number of units/density/square footage) or location giving the reader no clue as to how these projects may contribute to the cumulative environmental impacts.[50] This deficiency results in a failure to provide the public and decision-makers with the information that will enable them to intelligently take account of the Project's environmental consequences.[51] A15-12a

The DSSEIR's cumulative impact analyses do not consider the cumulative impacts caused by adding thousands of residential units to an area that has historically been dominated by military base uses. The 2003 PEIR permitted the conversion to parks and recreation uses and did not consider this intensive level of development. The proposed conversion of highly desired and needed recreational, park and open space uses to high-density residential uses will have profound and adverse effects on the area, including impacts to traffic levels, parks and recreational facilities, ocean beaches, parking, wildlife, and land use. A robust analysis of the Project's cumulative impacts is especially important here, given the existing current demands on the area's transportation infrastructure and the current lack of parks and recreation facilities in the Great Park area.[52] A15-12b

The DSSEIR fails to consider the Project's cumulative impacts in combination with other proposed, approved and recently built residential projects. For example, the DSSEIR does not even mention the approved 753-unit Laguna Altura project or the recently approved Irvine A15-12c

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[46] / *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79; see *Citizens to Preserve the Ojai, supra*, 176 Cal.App.3d 421, 430-432.

[47] / *CBE, supra*, 103 Cal.App.4th at p. 120; see also *Kings County Farm Bureau, supra*, 221 Cal.App.3d at p. 720.

[48] / CEQA Guidelines, § 15355, subd. (b); *L.A. USD, supra*, 58 Cal.App.4th at pp. 1024-1025.

[49] / DSSEIR, p. 4-20.

[50] / *Ibid.*

[51] / *See Kings County Farm Bureau, supra*, 221 Cal.App.3d at p. 720.

[52] / *San Franciscans for Reasonable Growth, supra*, 151 Cal.App.3d at p. 79.

Spectrum Center, which includes the addition of 1,206 dwelling units in Planning Area 33 (GPA 00529481-PGA and Zone Change 00529482-PZC), let alone analyze the cumulative impacts that Project-related development in the Great Park area will have in combination with these and other neighboring residential and mixed-use projects. A15-12c cont'd.

The DSSEIR reports that Irvine will experience a disproportionately large increase in both population and employment by 2035, relative to Orange County as a whole.[53] This anticipated large increase in population and employment must be taken into consideration in the DSSEIR's analyses of cumulative impacts in a variety of impact areas, not just population and housing. For example, population growth in Irvine and the region will likely cause cumulative traffic and recreation impacts that the DSSEIR must address. A15-12d

To the extent further residential development in the Great Park area, beyond the approximately 5,000 units associated with this Project, is reasonably foreseeable, the DSSEIR must analyze the impacts of that development on neighboring jurisdictions, including Laguna Beach. *Terminal Plaza Corp. v. City and County of San Francisco* is instructive on this subject. There, the Court addressed whether a city was required to consider the cumulative effects of future construction activities that would result from an ordinance under consideration. After acknowledging that it was "presently impossible to determine with specificity the number, nature or location of replacement construction projects," the Court stated:

> Until such projects are proposed, their impact – individually and in the aggregate – cannot be gauged with exactitude. But that the ordinance reasonably portends possible future environmental impacts flowing from the cumulative effect of probable replacement construction projects seems undeniable. And even before specific projects are commenced the City may be able to state – at least in general terms – that the ordinance will have an impact upon the environment, or to dismiss that possibility. Without a threshold evaluation, however, the City leaves its constituents in ignorance of the avoidable dangers CEQA intended to avert.[54]

A15-12e

As in the *Terminal Plaza Corp.* case, the DSSEIR here must evaluate the impacts that will be caused by increased residential development in the Great Park area. This analysis must include a description of the probable locations for future residential projects; to the extent these locations can be predicted.

III. SPECIFIC COMMENTS

A. Section 5.7 - Land Use

Cumulative Impacts (p. 5.7-55). Intensive redevelopment to residential uses in the vicinity of built and approved commercial and industrial uses could cause land use compatibility impacts related to hazards/hazardous materials, air quality, noise, and traffic. This section fails to provide a detailed analysis concerning the compatibility between proposed, approved and built A15-13

[53] / DSSEIR, 5.9-3 - 5.9-4.

[54] / (1986) 177 Cal.App.3d 892, 904–905.

residential development and proposed, approved and built commercial and industrial development. The analysis of cumulative land use impacts must therefore be revised to consider the Project's consistency with built, approved, and pending non-residential uses in the Great Park area. A15-13 cont'd.

B. Section 5.9 – Population and Housing

The discussion of housing prices in Irvine suggests a persistent problem: an inadequate supply of affordable housing.[55] The impact analysis portion of the Section 5.9 refers to the General Plan Housing Element as setting forth policies that will promote the development of affordable housing within the Great Park area.[56] Earlier in the section, however, the DSSEIR notes that the Housing Element must be revised to address and accommodate the Southern California Association of Government's most recent affordable housing targets. For Irvine's Housing Ordinance to be effective as advertised, it must set forth a performance standard for meeting the affordable housing targets set by the RHNA. Because the analysis does not provide enough information regarding the actual affordability of the so-called "affordable" residential units that will be allowed with this Project, there is no substantial evidence supporting the conclusions that the impacts would be less than significant and that mitigation is therefore not required.[57] A15-14a

Furthermore, if there is no assurance that a significant percentage of the new residential units in the Great Park area will be affordable, then the DSSEIR assumptions concerning the "trip capture" efficiencies achieved by locating residential uses near Great Park area employers may be misplaced. Please explain how the increased housing provided by the Project will be sufficiently affordable to employees Great Park area, such that the asserted efficiencies will be achieved. A15-14a

C. Section 5.11 – Recreation

The Recreation section does not determine whether the park facilities proposed as part of the Great Park will be adequate to serve the contemplated amount of existing and additional residential development in the areas of Irvine that will be served by the Great Park facilities. While the DSSEIR acknowledges "the project would generate a need for a total 47.46 acres of community parkland and 41.34 acres of neighborhood parkland" (without the optional conversion)[58], this amount of parkland would only be sufficient to address the recreation needs of a portion of the additional residents the Project will add to the Great Park area. As discussed in more detail below, the Great Park area population will actually be much larger that assumed in the Recreation section analysis. The analysis also fails to address the existing deficiency of recreational facilities within Irvine generally. A15-15

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[55] / *See* DSSEIR, p. 5.9-5

[56] / *Id.* at pp. 5.9-5, 5.9-9

[57] / *Id.* at p. 5.9-10

[58] / *Id.* at p. 5.11-10 – 5.11-11.

According to the anticipated population for the Great Park area, at least 435 acres of additional parkland, will be required for the Great Park area.[59] These parks must be within the Great Park area in order to meet the recreational needs of Great Park area residents. Currently there are no existing public or private neighborhood parks within the Project Area. The DSSEIR states that the 1,1435.3-acre Great Park would provide park space and amenities for the residents of the project site. However, there is no requirement that this planned park space will be developed before the residential units will be built. The addition of almost 5,000 dwelling units creates impacts to surrounding public and private parklands that were built to meet the recreational needs of those existing units. Impacts of additional users to these parks, is not discussed in the DSSEIR. A15-16

The Heritage Field DSSEIR describes a variety of other recreational opportunities available to Great Park area residents, such as ocean beaches in Laguna Beach.[60] However, there is no discussion of the direct impacts to Laguna Beach such as an increase in recreational weekend traffic, and indirect impacts such as increased demand on limited parking supplies and an increased demand for public services such as police, fire and ocean lifeguard services. These impacts must be addressed. A15-17

Furthermore, it may not be reasonable to assume that the Great Park itself will serve the park needs for the thousands of new residents associated with Heritage Fields, as stated in this section.[61] The Great Park is already anticipated to serve the park needs for thousands of other Irvine residents and the population of the entire Orange County region as stated in the DSSEIR.[62] The DSSEIR must analyze the current population that will be served by the Great Park and must examine the capacity for the park to serve the additional Great Park area residents. A15-18

The DSSEIR's tables concerning parkland dedication requirements include a column entitled "Estimated Persons per Household." It's not clear from the table or the DSSEIR where this "population generation factor" originates and whether it is based on the most recent 2010 Census Data. Please explain the assumed occupancy levels for each proposed residential unit type and describe how these assumptions are accurate for residential projects associated with the Project. The explanation must include information concerning the anticipated bedrooms per unit, information that is currently absent from the DSSEIR. (It seems quite unlikely that none of the housing types are expected to accommodate more than three persons per unit.) A15-19

Section 5.11.1 – Environmental Setting

***City of Irvine Park Standards* (p. 5.11-1).** The City's standard for new residential development is five acres of new parkland (three acres neighborhood / two acres community) for each 1,000 residents. The Project is anticipated to add almost 5,000 residential units (including density bonus units) at build-out of the Great Park area, all of which would be high density A15-20

[59] / *Id.* at p. 5.11-12.

[60] / *Id.* at p. 5.11-2.

[61] / *See id.* at p. 5.11-10.

[62] / *See id.* at p. 5.11-7.

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multi-story apartments or condominiums. Due to the high-density development pattern in the Great Park area, which does not allow for the typical open space areas attached to single-family residential development, the Project should not be evaluated using the same standards as single-family detached homes. Instead, development within the Great Park area should be subject to a standard that emphasizes public open space. A15-20 cont'd.

The Great Park recreational amenities originally proposed in the 2003 PEIR include 2,946 acres of parks, sports parks, golf courses, habitat preserve, drainage and wildlife corridors, and fairgrounds. The 2012 DSSEIR no longer describes the recreational amenities; instead, vaguely describes the Great Park as a large regional open space amenity for the benefit of the entire Orange County region. It does not acknowledge that many of these recreational amenities have been eliminated from the current plan, including a substantial reduction in golf courses, and elimination of the fairgrounds and exposition facilities.[63] The DSSEIR should explain and justify the reduction and elimination of these recreational amenities, especially in light of past representations and assurances. A15-21

Without sufficient public parks in the Great Park area, public recreational opportunities for Great Park area residents would have to be provided either at Irvine public parks outside the Great Park area or at parks outside Irvine's jurisdiction, including Laguna Beach parks. The Recreation section indirectly acknowledges this fact by stating that Irvine residents have access to recreational opportunities outside of Irvine, including Laguna Wilderness Park and Crystal Cove State Park and ocean beaches in Laguna Beach.[64] The additional residents of the Proposed Project traveling to Laguna Beach for recreation will significantly increase demands on limited parking, police and fire services and marine safety services. None of these impacts to surrounding neighborhood parks and cities outside of Irvine's jurisdiction are discussed in the DSSEIR. The DSSEIR must be revised to correct this substantial omission. A15-22

An explanation of the current demand for existing recreational facilities and how this compares to capacity must be provided. Without this information, it is impossible to discern whether the DSSEIR adequately analyzes this project's contribution to the cumulative demand for recreation facilities. A15-23

Section 5.11.4 – Environmental Impacts

Impact 5.11-1 **(p. 5.11-9).**

The DSSEIR lacks substantial evidence supporting the conclusion that the Project will not have any significant impacts on recreational facilities and resources. As such, mitigation may be required to address the Project's impacts. A15-24

Laguna Beach's park facilities, wilderness areas and beaches are already over utilized by the underserved residents surrounding the Great Park area. Irvine's rapid approval and development of so many new residential projects, which lack adequate access to parks, has

[63] / *See* Traffic Study, p. 1-8 [Table 1-1].

[64] / DSSEIR, pp. 5.11-2, 5.11-6.

caused significant impacts on Laguna Beach's parks and recreational facilities, particularly the beaches, and create secondary impacts to a limited supply of parking spaces and public services. The thousands of new residents that this Project (combined with those allowed under the 2011 approvals) will introduce to the area will greatly exacerbate this problem.

The DSSEIR should include enforceable mitigation that would require park in-lieu fees and/or parkland dedication requirements so that recreational opportunities within the Great Park area are provided in a timely manner. Furthermore, the DSSEIR should describe provisions that will guarantee funding sources will be available when Irvine is ready to purchase sites for recreational facilities. The public and Irvine's elected decision makers must be able to ascertain whether or not adequate facilities *will be* provided, either on- or off-site. This is currently not possible, because the DSSEIR relies primarily on conjecture and preliminary conclusions, neither of which may be used to satisfy the requirement that EIRs must provide effective, enforceable mitigation for impacts. If an in-lieu fee is proposed as a mitigation measure, the DSSEIR must demonstrate that such fee will actually result in mitigation of the Project's impacts on parks and recreational facilities.[65] If it does not, then the analysis concerning impacts to parks here is analogous to the cumulative traffic impacts analysis in *Anderson First*. The DSSEIR presents inadequate impact analysis and improperly defers mitigation under CEQA. A15-24 cont'd.

To assess feasibility, the DSSEIR should specifically describe how much the new parks will cost, and who is going to pay for them and should analyze whether the in lieu fees exacted for such improvements is proportional to the Project's impacts to recreation. To do any less is to create significant impacts on neighboring jurisdictions, like Laguna Beach, when the residents of the Project are unable to find nearby parks and must instead travel to the extra-jurisdictional nearest park facilities.

Section 5.11.5 – Cumulative Impacts

The DSSEIR does not address the cumulative impacts to parks and recreational facilities caused by other pending and reasonably foreseeable residential development projects within the Great Park area and the surrounding area. Moreover, the geographic scope of analysis for cumulative impacts to parks fails to consider impacts in neighboring jurisdictions, such as Laguna Beach, where recreational facilities, particularly beaches and regional parks, are used by many Irvine residents, as acknowledged in the DSSEIR.[66] Instead, the DSSEIR merely states that the transfer of land and payment of fees to establish the Great Park satisfies the provision of community parks, thus finding that no significant cumulative impacts will result from the Project.[67] This cursory analysis fails to address the Project's contribution to the current unsatisfied demand for recreational facilities. A15-25

[65] / *See Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1189 (*Anderson First*) [cumulative traffic impacts analysis held inadequate because agency relied on uncertain funding and therefore had insufficient evidence to conclude that necessary road improvements would, in fact, be built].

[66] / *See* DSSEIR, p. 5.11-2.

[67] / *See id.*, at p. 5.11-10.

We urge Irvine to more carefully consider the impact of the Project on existing recreational resources as well as how these impacts will be mitigated through timely development of additional parks. A15-25 cont'd.

D. Section 5.12 – Transportation and Traffic

General Comments

The scope of the proposed Project makes it a project of area wide significance that could affect transportation facilities within neighboring jurisdictions, including Laguna Beach. Consequently, Irvine was required to consult with Laguna Beach, as it would other responsible agencies, concerning the Project's potential impacts on regional traffic.[68] Irvine failed to consult with Laguna Beach during the DSSEIR scoping process. We offer the following comments so that the DSSEIR may better perform its function as an informational document and so that all Project impacts are identified and mitigated to the extent feasible. A15-26

Assumptions Regarding the Great Park Area Roadway Network. The DSSEIR's analysis of the Project's traffic impacts uses the Irvine Transportation Analysis Model ("ITAM"), Version 8.4-10, and cumulative growth settings. The ITAM's analysis is based on the existing circulation system plus unspecified improvements that are planned to be in place in each future time frame and the land use and development growth that is projected in each future time frame. The funding source of future improvements is the North Irvine Transportation Model ("NITM") program established in 2003.[69]

The 2004 Traffic Impact Analysis ("TIA") Guidelines adopted by Irvine require traffic studies to provide detailed information regarding improvements that are assumed to be in place in the interim year (i.e., 2015).[70] According to the TIA Guidelines, such information includes the nature and extent of the improvement project, the implementation schedule, and the agency or funding source responsible.[71] The DSSEIR does not include all of this information. The traffic study includes a number tables describing the improvements assumed to be in place in future years, where only a portion of this information is presented.[72] The information regarding future lane configurations presented in Tables 4-5 through 4-10 is incomplete: the tables do not provide all lane configuration information for future years under the "constraint" and "MPAH" scenarios. In addition, the tables do not provide the required detailed information regarding the funding sources for the improvements or when the improvements will be implemented. A15-27

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[68] / *See* Pub. Resources Code, § 21092.4.

[69] / DSSEIR, pp. 5.12-2, 5.12-3.

[70] / In an effort to minimize the length of these comments, we have opted not to attach to this letter a full copy of the TIA Guidelines, which Irvine adopted on August 24, 2004. Instead, we incorporate the TIA Guidelines by reference herein and request that this document be made a part of the administrative record for the Project.

[71] / TIA Guidelines, pp. 7-8.

[72] / *See* Traffic Study, pp. 1-9 - 1-21, 2-8, 4-1, 4-26, 4-33 - 445 [Tables 4-5 through 4-10], 4-49 - 4-51.

As drafted, neither the DSSEIR nor the traffic study satisfies the mandatory requirements of Irvine's adopted TIA Guidelines. Please provide all the required information concerning the assumed improvements for the interim year and buildout scenarios in a manner accessible to the reader.[73]

Laguna Beach is concerned that assumed roadway improvements will not be constructed in a timely manner, or may not be feasible at all. The DSSEIR is conclusory when stating that only fully funded improvements were assumed in the ITAM interim year analysis. The TIA Guidelines require more specific information, especially with respect to interim year improvements.

A15-27 cont'd.

Geographic Scope of Study Area. The Project has the potential to impact traffic in Laguna Beach. Laguna Beach is located southeasterly and adjacent to Irvine as depicted in Figure 4-2, Environmental Setting. State Route 133 ("SR 133"), bordering the Project site, provides direct access to Laguna Beach. The traffic study area in the DSSEIR terminates just short of where SR 133 narrows from a 4-lane highway to a 2-lane conventional highway. The analysis stops just short of the area where traffic impacts that affect Laguna Beach are likely to occur. In fact, the DSSEIR traffic study reveals that the intersection of SR133 with the SR73 north ramps is at the absolute maximum of acceptable LOS E during the existing condition a.m. peak hour. Even a slight increase in traffic would have a significant impact at this location. This existing condition, so close to the boundary of the Study Area, should have triggered an evaluation of impacts farther south in the SR 133 corridor and the Study Area should have included all intersections in Laguna Beach adjacent to SR 133 that could potentially be affected by the increase in traffic caused by the Project. This conservative analytical approach is mandated by CEQA and is expected from a lead agency that takes responsibility for the impacts of large-scale development activities within its jurisdiction.

A15-28

Land Use Assumptions. The Population and Housing section reports that the County as a whole will experience a substantial increase in both residents and employees, and that much of this growth will be focused in Irvine.[74] Population and employment growth in the amount reported in Table 5.9-3 will certainly cause substantial land use changes and bring associated traffic. The forecasted no project traffic conditions may not have considered these growth projections. Thus, the traffic analysis may underestimate the cumulative impacts of the Project combined with foreseeable development activities based on under-estimated land use assumptions. The DSSEIR must reconcile any conflicting information and conclusions.

A15-29

The appendices to the DSSEIR do not provide sufficient information to determine what extra-jurisdictional development was considered in the DSSEIR analyses. Please confirm that the traffic impact analysis considered all pending and planned extra-jurisdictional development.

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[73] / *Vineyard Area Citizens*, *supra*, 40 Cal.4th at p. 442 ["[t]he data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. '[I]nformation 'scattered here and there in EIR appendices,' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis. . . .'"], quoting *California Oak Foundation v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1239.

[74] / DSSEIR, Table 9-3.

When providing this response, please provide detailed information concerning the extra-jurisdictional projects and growth considered.

Development Intensity Caps. The DSSEIR uses Average Daily Trip ("ADT") trip budgets as a cap for the maximum intensity of development within the Great Park Area. Uses within the Great Park must be designed to generate traffic within the current ADT trip budget and are therefore assumed to have been previously analyzed.[75] A15-29 cont'd.

However, traffic impact analysis has been improperly deferred for some of the proposed uses within the Great Park area. For example, the DSSEIR states that the Sports Park and associated improvements will be subject to site-specific traffic, access and parking analysis as part of any future modification of the OCGP Master Plan to incorporate the Sports Park and related improvements once the details necessary to perform that analysis are available.[76] These details must be developed now, while project-level review is being conducted for the Project, not deferred until some undefined future date.

The DSSEIR also does not address the likely development pattern that will arise through multiple future transfers of development intensity. The potential development pattern arising from such transfers implicates the land use assumptions used in the Transportation and Traffic Chapter. The DSSEIR must be revised to clearly identify the currently approved and the proposed development patterns in the Great Park area and to anticipate and analyze the development patterns that will likely arise over time through multiple transfers in development intensity. A15-30

Because the Project includes comprehensive regulatory changes for the Great Park area, it must reevaluate the impacts that will occur upon buildout. "CEQA nowhere calls for evaluation of the impacts of a proposed project on an existing general plan; it concerns itself with the impacts of the project on the environment, defined as the existing physical conditions in the affected area."[77] Instead, the traffic impact analyses for future year scenarios fail to disclose impacts associated with increased residential development because it assumes this development will occur through "reallocation" of existing permissible nonresidential development intensity. By utilizing the 2003 Great Park area development cap, the DSSEIR understates the impacts that will occur upon Great Park area buildout, because it impermissibly deducts projected traffic that hypothetically would have been generated by industrial and office uses, but in many instances that hypothetical development will never occur on the sending site.

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[75] / *See, e.g.*, Traffic Study, p. 2-1 ["Proposed Sports Park and associated improvements shall be designed to generate traffic within the current ADT trip budget and are therefore assumed to have been previously analyzed"].

[76] / *Id.* at p. 1-2.

[77] / *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, 709 (*Woodward Park*) (citing *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354).

Section 5.12.1.1 – Traffic Analysis Methodology

***Traffic Counts* (p. 5.12-9).** The traffic study does not indicate the time of year when the traffic counts were conducted.[78] Please provide additional specific information concerning the timeframe within which traffic counts were performed. Traffic counts conducted for roadways/highways into Laguna Beach during the winter when recreational uses and arts festivals are out of season, for example, would understate the existing traffic levels. A15-31

Peak Hour Link Analysis. For each of the scenarios analyzed in this section, the DSSEIR finds that freeway ramp intersections would operate at an acceptable LOS in both peak hours.[79] This result seems improbable and counterintuitive, especially since traffic congestion at freeway ramps in the study area is already a problem, and planned development in the Great Park area, including the Project, will contribute significantly to rush hour traffic. Please confirm these results are accurate.

As the attached comments from Laguna Beach's traffic consultant state, recreational travel patterns and timing differ from typical weekday peak hours. The DSSEIR fails to address potential traffic impacts on Laguna Beach by the failure to study direction and/or weekend recreational travel trip productions associated with a shift to more residential uses. Use of a trip generation cap does not assess the impacts of the behavior differences between residential trips and non-residential trips. Residential uses generate weekend recreational travel trip productions while non-residential uses generate few or no weekend recreational trip productions. The traffic analysis must be revised to include an analysis of potential impacts that may be associated with this proposed shift in land use patterns. A15-32

Section 5.12.2 – Thresholds of Significance

Case law recognizes that an adopted level of service, or "LOS," standard may serve as a threshold of significance for CEQA purposes.[80] Compliance with an LOS standard, however, does not relieve the agency of its duty to consider whether a significant impact may occur.[81] In the context of cumulative impacts, the issue is not the relative contribution of the project as compared to existing conditions, but whether "any additional amount" contributed by the project should be considered significant in view of the severity of the existing problem.[82] A15-33

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[78] / DSSEIR, p. 5.12-9.

[79] / *See*, e.g., DSSEIR, p. 5.12-45, 5.12-47, 5.12-61, 5.12-72, 5.12-84 .

[80] / *See Schaeffer Land Trust v. San Jose City Council* (1989) 215 Cal.App.3d 612, 623-625.

[81] / *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342 [observing a public agency cannot apply a threshold of significance in a way that prevents consideration of other evidence showing that there may be a significant effect]; see CEQA Guidelines, § 15064.7, subd. (b); *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109-1111.

[82] / *CBE*, *supra*, 103 Cal.App.4th at pp. 119-120; *Kings County Farm Bureau*, *supra*, 221 Cal.App.3d at p. 721 [rejecting cumulative air quality impact analysis for relying on discredited "ratio" theory].

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Pursuant to the DSSEIR's thresholds of significance, the Project would have a significant effect if the project could exceed the LOS standard established by the respective jurisdiction within the study area.[83] Irvine's continued use of LOS E as the acceptable baseline condition for some roadways within the Great Park area is inappropriate. This standard establishes levels of unsatisfactory traffic differently for some areas within the Great Park area (LOS E) than for the remainder of the study area (i.e., LOS D). This may have made sense when the area was almost exclusively military base, industrial, commercial, and office uses, but does not make sense with increased residential uses, which have intensified exponentially in recent years. The thousands of new Great Park area residents should be entitled to the same traffic level protection as other residents.

The study area includes the intersection of SR 133 with the SR 73 north ramps within the City of Laguna Beach, and the traffic study indicates this intersection is at the maximum LOS E v/c ratio of 1.00 during the a.m. peak hour. This existing condition so close to the boundary of the study area should have alerted the traffic study consultants to analyze conditions farther south in the SR 133 corridor. A15-33 cont'd.

Neither the DSSEIR nor the traffic study explains the very specific performance standards that have been applied in the analysis.[84] The traffic study did not apply a different performance standard for determining whether the Project generated traffic would be cumulatively considerable when added to the cumulative condition. The DSSEIR should explain why the performance standards are appropriate for both the direct and the cumulative traffic impact analyses.

Section 5.12. 4 – Environmental Impacts

Impact 5.12-1 **(p. 5.12-34).**

Organization of Subsection. The analysis of traffic impacts is quite detailed and somewhat complex. Thus, without a more detailed index, it is difficult to navigate this analysis to compare identified impacts at the various scenarios. To better disclose this information; please include a detailed index to this analysis. A15-34

Existing Plus Project Analysis. Using the flawed methodology, the Existing with Project analysis concludes that a number of arterials and one freeway ramp would operate at deficient LOS.[85] Yet, the DSSEIR fails to propose mitigation for the impacts identified in this analysis apparently because the Existing With Project scenario is a theoretical exercise.[86] This argument disregards, however, the fact that several projects in the vicinity of the Great Park will be fully A15-35

[83] / DSSEIR, pp. 5.12-4.

[84] / *See* Traffic Study, pp. 2-15 - 2-17 [Table 2-4].

[85] / DSSEIR, pp. 5.12-36, 5.12- 46; *see also* Traffic Study, p. 5-21.

[86] / *Id.* at pp. 5.12-128.

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developed by interim year 2015. Thus, the impacts identified in the Existing With Project analysis that may occur must be mitigated to the extent feasible.[87]

The DSSEIR states that the Existing With Project analysis determined that only one intersection in the p.m. peak hour would operate at a deficient LOS.[88] The DSSEIR further asserts that this deficiency will be removed in future year scenarios by a planned improvement.[89] There is no substantial evidence, however, supporting this assertion. The DSSEIR does not explain how this deficiency will be addressed because it does not discuss the relationship between planned improvements and identified deficiencies. A15-35 cont'd.

Section 5.12.5 Cumulative Impacts. The DSSEIR fails to adequately consider the potential impacts and applicable mitigation measures for all of the residential development projects that have already been approved in the Great Park area, which have contributed to the measurable and rapid transformation of the Great Park area. The traffic from this residential development behaves differently than the non-residential traffic originally approved in the Great Park area. Residential traffic generates recreational weekend trips. The DSSEIR fails to analyze this difference. The DSSEIR, for example, does not address the cumulative impacts that have been and will continue to be caused by Irvine's use of approved development intensity to promote intensive residential development within the Great Park area.

The traffic analysis must consider these thousands of units in future traffic projections particularly as they relate to Laguna Beach. However, it is not clear that these projects were considered because the DSSEIR does not specifically state that these projects were included and considered in the cumulative analysis.[90] A15-36

The analysis of cumulative traffic impacts must address whether the Project's incremental contribution to cumulative impacts caused by closely related past projects will be "cumulatively considerable."[91] Rather than comply with this requirement, the DSSEIR analyzes cumulative traffic impacts by applying a threshold of significance that does not appropriately consider smaller impacts that may nonetheless be cumulatively considerable. Specifically, Irvine applies a change in ICU or LOS of 0.02 as the threshold of significance for both direct and cumulative traffic impacts to intersections and Projects.[92] In the context of cumulative impacts, the issue is not the relative contribution of the project as compared to existing conditions, but whether "any additional amount" contributed by the project should be considered significant in

[87] / *See* CEQA Guidelines, § 15125, subd. (a) [lead agency must not only describe the physical environmental conditions as they exist at the time the NOP is published, but also must evaluate the project's impacts upon the existing environment]; *see also Woodward Park*, *supra*, 150 Cal.App.4th at pp. 706-707.

[88] / DSSEIR, p. 5.12-45.

[89] / *Id.* at p. 5.12-46.

[90] / *See* DSSEIR, p. 5.12-3.

[91] / *See* CEQA Guidelines, § 15355, subd. (b); see also *Environmental Protection Information Center v. Johnson* (1985) 170 Cal.App.3d 604, 624-625 (*EPIC*) [EIR must consider cumulative effects of past projects]; *see also Environmental Protection & Information Center v. Cal. Dept. of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 523 (*EPIC*) [same].

[92] / DSSEIR, p. 5.12-8.

light of the severity of the existing problem.[93] Laguna Beach urges Irvine to consider the impacts of residential recreational weekend trips and to change the threshold of significance for identifying cumulative traffic impacts to a change in LOS or ICU of 0.01. If Irvine insists on using the same peak hour weekday analysis and threshold of significance for cumulative traffic impacts as it does for direct traffic impacts, Laguna Beach requests a reasonable explanation verifying that application of this threshold complies with CEQA's requirements for analyzing cumulative impacts. A15-36 cont'd.

The DSSEIR discusses geographic scope and growth projections but concludes, with little supporting evidence, that Project traffic along with other regional growth at ramp and freeway locations are largely mitigated through a combination of regional programs that are the responsibility of other agencies.[94]

Section 5.12.6 – Mitigation Measures

As further explained below and in the attached comment letter from Laguna Beach's traffic consultant, many of the mitigation measures identified in the Mitigation Program are deficient for one or more of the following reasons: they (i) are based on dubious impact analysis methodology, (ii) fail to include the necessary details and mandatory language to ensure enforceability, (iii) do not sufficiently mitigate the Project's impacts to traffic, (iv) do not include adequate sources of funding, or (v) do not include performance standards or otherwise impermissibly defer mitigation. A15-37

Due to the lack of analysis of Project impacts to Laguna Beach roadways and intersections, Laguna Beach does not believe it would be productive to comment at this time on possible traffic mitigation measures for potentially significant Laguna Beach traffic impacts. Instead, we urge Irvine to revise the analysis, in consultation with Laguna Beach traffic engineers and its traffic consultant. Following receipt and review of the revised analysis, Laguna Beach may have more specific comments regarding identified impacts and proposed mitigation measures. A15-38

Mitigation is not Sufficiently Enforceable. To satisfy the requirement to mitigate project impacts, EIRs must set forth mitigation measures that decision makers can adopt at the findings stage of the CEQA process.[95] Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. The DSSEIR fails to ensure that the required intersection and roadway improvements will occur when needed to serve future conditions and that project proponents will pay their appropriate fair share. A15-39

[93] / *CBE, supra*, 103 Cal.App.4th at p. 120.

[94] / *See id.* at p. 5.12-128.

[95] / Pub. Resources Code, § 21100, subd. (b)(3); CEQA Guidelines, §§ 15126, subd. (e), 15126.4.

CEQA requires Irvine to mitigate all of the Project's impacts, including extra-jurisdictional impacts, to the extent feasible.[96] Moreover, Irvine's adopted TIA Guidelines require Irvine to enter into an agreement with local agencies that will be impacted by the Project.

> If impacts on other jurisdictions are identified, such impacts shall be mitigated. The applicant shall be conditioned to enter into an agreement between the applicant (or his successors), the City of Irvine and the affected jurisdiction. This agreement shall establish the manner in which the improvements will be made, timing of those improvements and the procedure by which funding shall be made by the applicant for the improvements.[97]

In spite of this requirement, Irvine has failed to coordinate mitigation with each affected jurisdiction and to enter into the required agreements concerning mitigation for traffic impacts. While measures TRAN9 and TRAN10 include the requirement for the developer to use good faith efforts to enter into Fair Share Agreements with Caltrans, these measures do not require such an agreement and do not include performance standards.[98] Irvine must coordinate its mitigation for the Project's extra-jurisdictional traffic impacts, and then enter into enforceable agreements regarding the mitigation, rather than simply identify possible mitigation.[99]

A15-39 cont'd.

The DSSEIR states that Irvine has and will develop the proposed Mitigation Program in "coordination" with CalTrans and adjacent jurisdictions. Yet there is little evidence that such coordination has occurred or will occur. The mitigation measures proposed in the DSSEIR were not established through coordination, as stated in the DSSEIR. "'[C]oordination' implies some measure of cooperation that is not achieved merely by asking for and considering input or *trying* to work together."[100]

Irvine must ensure that all extra-jurisdictional mitigation proposed in the DSSEIR is acceptable to each respective jurisdiction. Proposing mitigation without more of an effort to ensure the mitigation is adequate and will be implemented as advertised is a form of improper deferral of mitigation.[101] While identifying potentially feasible mitigation is an improvement over biological report mitigation in *Defend the Bay*, the strategy suffers from a similar deficiency: failing to identify enforceable and feasible mitigation that Irvine can recommend the outside agencies implement and can partially fund by contributing fair share fees.

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[96] / *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 366-367; *see also County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 104.

[97] / TIA Guidelines, p. 19.

[98] / *See* DSSEIR, pp. 5.12-139 - 5.12-140.

[99] / *See also Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1259, 1262 [mitigation measures must be "incorporate into the project or required as a condition of project approval in a manner that [would] ensure their implementation"].

[100] / *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 641.

[101] / *See Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1275 [deferral of mitigation is impermissible when an agency "simply requires a project applicant to obtain a report and then comply with any recommendations that may be made in the report"].

Another example of this failure is Irvine's vague commitment to "make a good faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements."[102] Irvine's failure to coordinate mitigation measures with Caltrans to address impacts to freeway mainlines and ramps is similar to a county's failure to commit to specific mitigation measures in *Gray v. County of Madera*.[103] The DSSEIR includes a mitigation measure that requires Irvine to enter into a mitigation agreement with Caltrans "prior to issuance of a building permit for the last final map."[104] The measure does not require timely coordination of mitigation. In addition, the DSSEIR does not explain why this agreement would not be necessary to mitigate impacts that occur before the last final map is approved.

The DSSEIR does not reflect a good faith effort to define potentially feasible mitigation measures for impacts to the freeway mainline and ramp systems. Instead, the DSSEIR has shifted onto Caltrans the responsibility to define mitigation for these Project impacts. Since the DSSEIR already assumes everything Caltrans proposes in its currently defined programs to be implemented in the post-2030 scenarios, the DSSEIR should, at a minimum, include a reconnaissance level investigation in an attempt to identify what measures, beyond those Caltrans already has programmed, might be feasible. Irvine must also investigate Caltrans' freeway improvement programs to ensure the planned improvements will be implemented in a timely manner.

A15-39 cont'd.

The mitigation measures included to address freeway mainline and ramp improvements impermissibly defer mitigation. The DSSEIR states that Caltrans has the primary responsibility to implement transportation improvements to Caltrans facilities, including freeway mainlines.[105] According to the DSSEIR, neither Caltrans nor the State has adopted programs to ensure locally contributed impact fees will fund improvements to freeway mainlines.[106] Although the DSSEIR recognizes that Orange County has some programs to improve and upgrade regional transit systems, it notes that the lead agency's hands are tied. Instead of grappling with mitigating the potential impacts to freeway mainline Projects and ramps, the DSSEIR concludes that, if the relevant agencies do not implement these programs, the impacts will remain significant and unmitigated. The DSSEIR must be revised to squarely address the feasibility of these mitigation measures.

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[102] / DSSEIR, p. 5.12-139 [this promise includes the caveat: "It may not be possible to successfully negotiate the agreement with Caltrans"].

[103] / (2008) 167 Cal.App.4th 1099, 1121-1122.

[104] / DSSEIR, p. 5.12-139.

[105] / *Id.* at p. 5.12-141.

[106] / *Ibid.*

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In each of the above examples, the details of mitigation are not sufficiently defined. CEQA requires more. To the extent that the Project is responsible for impacts, Irvine must ensure that feasible measures are defined and enforceable.[107]

A15-39 cont'd.

Mitigation May be Financially Infeasible. Mitigation Measures TRAN5, TRAN7, TRAN9, TRAN10 and TRAN12 do not describe the measures as mandatory and the source of funding.[108] For example, mitigation measure TRAN5 states that, "For those intersections listed below … the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigation shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements."[109] The DSSEIR does not specifically state whether any funds would be available in the future to carry out these improvements.

A15-40

The DSSEIR must describe the improvements with greater specificity and provide an explanation concerning the adequacy of funding for the assumed intersection improvement and the likelihood that they will be implemented in a timely manner. While CEQA does not require that the EIR set forth a time-specific schedule for the lead agency to complete specified improvements, it does require that the agency have a reasonable plan for mitigation.[110] The DSSEIR does not describe Irvine's plan for mitigating these impacts.

Additionally, the EIR fails to identify the timing for particular improvements. Please provide the required information regarding the anticipated timing and funding sources for implementation of these mitigation measures.

Fee Assessment/Fair Share for Improvements. The DSSEIR states that a fair share fee program will be developed to address the overall cost of improvements required for significant Project impacts identified in adjacent jurisdictions. This description of a fair share program does not address whether sufficient fees for particular improvements will be collected and whether the improvement will be completed by the time it is needed.

A15-41

The costs of these improvements and the fee program for required mitigation must be developed now, before the Project is approved. Neither the Mitigation Fee Act (Gov. Code, § 66000 et seq.) nor the concepts of nexus and proportionality explained in *Nollan v. California Coastal Comm'n* (1987) 483 U.S. 825, and *Dolan v. City of Tigard* (1994) 512 U.S. 374, can excuse the failure to impose adequate and enforceable mitigation for acknowledged significant impacts.

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[107] / *See* CEQA Guidelines, § 15126.4, subd. (a)(1)(B) TA \s "CEQA Guidelines, § 15126.4, subd. (a)(1)(B)" TA \s "CEQA Guidelines, § 15126.4, subd. (a)(1)(B)" ; *see also Endangered Habitats League v. County of Orange* (2005) 131 Cal.App.4th 777, 793–794 *Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1028-1029 (*SOCA*); *see also Federation of Hillside and Canyon Associations, supra,* 83 Cal.App.4th at p. 1262.

[108] / *See id.* at pp. 5.12-136 - 5.12-140.

[109] / *Id.* at pp. 5.12-136.

[110] / *Save Our Peninsula Com., supra,* 87 Cal.App.4th at p. 135.

In *Gray v. County of Madera*, an EIR prepared for a 900,000 ton per year aggregate quarry required the applicant to "[c]ontribute an equitable share of the cost of construction of future improvements[.]"[111] The court struck down the adopted fee program, because there was "no definite commitment on when improvements [would] take place[.]" The same error has occurred here. The DSSEIR must provide the required information concerning mitigation funding and the timing of implementation.

The DSSEIR's discussion of a mitigation fee program must more clearly explain how funds will be applied in a timely manner to implement required mitigation. The analysis must also address the feasibility of acquiring sufficient funds to timely implement planned mitigation. By failing to provide these explanations and the supporting analysis, the DSSEIR improperly defers mitigation. A15-41 cont'd.

Mitigation is also improperly deferred when it calls for a future study and requires compliance with the recommendation of that study. TRAN5 suffers from this problem: it requires a traffic study in conjunction with the submittal of TTM or TPM to verify whether the intersection locations, identified as impacted, are projected to impacted by the project of the Interim Year Analysis.[112] Preparing a study does not mitigate the identified impacts. The DSSEIR fails to explain how the intersections would change following such studies so that they are no longer impacted.

The DSSEIR Fails to Analyze Impacts that will be Caused by Traffic Mitigation. The DSSEIR does not analyze the impacts associated with infrastructure improvements required as Project mitigation, including the impacts caused by the right-of-way acquisition. These impacts must be analyzed now. CEQA requires that lead agencies analyze both the direct and indirect impacts of the "whole of the project," including impacts that may arise from implementation of mitigation measures.[113] Failing to consider these impacts is a form of impermissible piecemeal review.[114] A15-42

Section 5.12.9 – Level of Significance After Mitigation.

Section 5.12.9 acknowledges that "there are intersections where improvements may not be feasible due to cost, right-of-way concerns, or community opposition. Traffic impacts could remain significant and unavoidable."[115] If Irvine adopts a Statement of Overriding Considerations, it must explicitly and specifically state Irvine's compelling reasons to approve the Project despite its significant and unmitigated impacts. Irvine must also support its determination that specific measures are infeasible. A decision to adopt a Statement of Overriding Considerations may not be made without sufficient factual support. All feasible A15-43

[111] / (2008) 2008 Cal.App.4th 1099, 1122.

[112] / *See* DSSEIR, p. 5.12-136.

[113] / *See* CEQA Guidelines, § 15003, subd. (h).

[114] / *See Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829 [EIR failed to analyze impacts of constructing facilities necessary to deliver water to project].

[115] / *Id.* at pp. 5.12-14.

mitigation measures must be adopted and enforced, especially in light of the numerous remaining significant unmitigated traffic impacts identified in the 2003 Great Park PEIR. A15-43 cont'd.

E. The DSSEIR Improperly Concludes that Impacts to Biological Resources Would Not Be Significant and Fails to Adequately Analyze and Mitigate These Impacts.

This section of the DSSEIR concludes that the Project would not have significant effects on Biological Resources, yet there is little to no evidence and analysis supporting this determination. The proposed Project includes a General Plan Amendment and Zone Change to relocate certain portions of the approved Wildlife Corridor that connects habitat preserve areas including the Laguna Beach Wilderness Park. Laguna Beach questions the unfounded conclusion that the wildlife corridor approved as part of the 2011 Heritage Fields project is the functional equivalent of the relocated corridor associated with the proposed Project. Laguna Beach also takes issue with the assumption that the relocated corridor provides functional integrity as a wildlife movement corridor. A15-44

The two technical reports that address the relocation of the wildlife corridor and noise and light impacts to biological resources (Appendix N and O respectively) fail to address these issues. These documents simply make unsupported conclusions that there will not be any impacts – they do not rely on substantial evidence and analysis. Similarly, the DSSEIR does not provide an analysis concerning (1) levels of noise and light that biologists would consider acceptable for the various affected species and (2) a corridor location and design that would not negatively impact wildlife movement. While the DSSEIR states the proposed corridor would generally be the same width and would include the same types of vegetation and habitat as the approved wildlife corridor location, it does not analyze how the proposed relocation will be equivalent and provide the necessary connectivity for wildlife movement to be successful.

F. The DSSEIR Fails to Analyze a Reasonable Range of Alternatives to the Project.

This section of the DSSEIR describes the two project alternatives that will be considered by Irvine decision-makers. The analysis does not examine a reasonable range of alternatives, as is required.[116] For example, it fails to analyze an alternative that would involve the conversion to fewer residential units or increasing the number of residential dwelling units by varying amounts while also including all planned transportation infrastructure described in the MPAH, including all transportation mitigation measures called for in the 2003 Great Park PEIR.[117] Such alternatives could potentially better satisfy some project goals, including the goal to provide transportation connectivity, while reducing traffic and air quality impacts. [118] The analysis must be revised to include this feasible alternative. A15-45a

[116] / *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 566 ["an EIR for any project subject to CEQA review must consider a reasonable range of alternatives to the project"].

[117] / Instead the DSSEIR provides a cursory explanation concerning Irvine's reasons for ruling out these alternatives during the screening process. DSSEIR, pp. 7-4 - 7-7.

[118] / As discussed above, the traffic and air quality sections of the DSSEIR failed to identify all impacts that would result from the Project.

Please explain what conversion factor was used to ensure that the amount of nonresidential development intensity equaled the proposed amount of increased residential development intensity associated with the Project. Please also provide factual support for this conversion factor. The DSSEIR does not appear to specifically describe the conversion factor or provide any substantial evidence supporting the conclusion that this conversion factor is accurate. Each residential unit may produce impacts that exceed the impacts that would be caused by "equivalent" amount of nonresidential intensity. Also, as mentioned above, the DSSEIR erroneously relies upon the population generation factor of 2.49 residents per unit,[119] despite substantial evidence that there actually will be more residents per unit in the Great Park area. Consequently, the DSSEIR underestimates the number of existing and anticipated residents in the Great Park area and thus fails to adequately address the impacts associated with thousands of unreported future residents: this problem pervades all analyses in the DSSEIR, including the analysis of impacts that would be caused by alternatives to the proposed project. A15-45b A15-45c

The DSSEIR must provide evidence that supports the conclusion that the recreational needs of Great Park area residents will be met, under each alternative scenario, solely through past parkland dedication. If past parkland dedication is insufficient, or if the amenities planned for the Great Park will not accommodate the burgeoning demands of a growing residential population, the DSSEIR must consider one or more alternatives that include locations for proposed community and neighborhood parks within the Great Park area. These parks may be necessary to serve Great Park area residents, and yet they are conspicuously absent from the proposed project and all project alternatives. If it is not feasible to identify the specific locations for these park facilities, then Irvine should reconsider its plan to add thousands of additional residents to the Great Park area without planning more proximate recreational facilities. Without a reasonable plan to provide the necessary recreational facilities, it is premature to consider a plan that would allow substantially more residential development within the Great Park area. A15-45d

G. Increased Traffic and Demand for Recreation Facilities Are Significant Irreversible Changes Caused by the Project.

This section of the DSSEIR acknowledges that "[a]n increase in vehicle trips would accompany project-related population and job growth."[120] Elsewhere, the DSSEIR fails to acknowledge the increased traffic that will be caused by the Project. Instead, the analysis simply substitutes trips that would occur under planned nonresidential development for the trips associated with increased residential development. A15-46a

The Project will have unique traffic and recreation impacts that differ from those impacts that would be caused by nonresidential development at buildout. This section must acknowledge all significant irreversible changes caused by the Project and the DSSEIR must consistently address the Project's unique impacts. A15-46b

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[119] / *See* DSEIR, p. 5.9-10 [26,679 residents divided by 10,700 units = 2.49].

[120] / DSSEIR, p. 9-2.

H. The DSSEIR Fails to Adequately Address the Project's Growth Inducing Impacts.

The DSSEIR correctly recognizes that increased residential development in the Great Park area will create new demands for neighborhood serving retail and other businesses.[121] But the analysis brushes aside, with scant discussion and no evidence, the possibility of this induced growth would have negative impacts.

The expected retail and other business projects are part of the same transformation process, reviewed by Irvine in a piecemeal fashion. With each new change to the Great Park contemplated in the 2003 PEIR and the subsequent addenda and the 2011 SEIR, the approved Great Park has steadily transformed into something quite different than originally advertised.

The analysis of growth-inducing impacts provided in this section of the DSSEIR fails to provide evidence supporting the assertion: "the proposed project would reduce growth-inducing impacts would be minimized due to the balance of land uses set forth by the proposed project or in close proximity to it."[122] Specifically, the DSSEIR does not include evidence that the mix of uses in the Great Park area will be balanced throughout the buildout process. It also does not consider the traffic, air quality, noise and other adverse impacts that would accompany this induced growth. Nor does it verify with evidence and analysis that the needs of Great Park area residents will be met locally, thereby minimizing VMTs. A15-47

Finally, while the DSSEIR recognizes that the proposed Project may encourage future General Plan amendments to allow development not contemplated in the Project, if fails to support the conclusion that environmental review for such future regulatory changes will ensure the associated environmental impacts are minimized.[123] The 2003 PEIR for the Great Park project and subsequent environmental review (in the form of eight Addenda and a Supplemental EIR) failed to result in mitigation for impacts associated with each subsequently proposed change to the original conception for the Great Park. Irvine must analyze, in this DSSEIR all foreseeable development associated with the foreseeable transformation of the Great Park area. If the residential development cap for the Great Park area will continue to grow, and additional General Plan amendments are now foreseeable, then DSSEIR must be revised to address these future projects.

IV. CONCLUSION

For all of the foregoing reasons, and for the reasons described in the attached comments, Irvine must revise and recirculate the DSSEIR for the Project. Until the environmental analysis is revised to fairly and objectively address all of the Project's impacts, and mitigation measures and alternatives are introduced to avoid or reduce the Project's significant extra-jurisdictional A15-48

[121] / *See id.* At p. 10-3.

[122] / *Ibid.*

[123] / *See id.* at p. 10-4.

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impacts, Laguna Beach will remain opposed to the proposed intensification of residential uses at the Great Park.

A15-48 cont'd.

Thank you for considering these comments. If you have any questions or concerns about anything expressed in this letter, please do not hesitate to contact me.

Sincerely,

John Pietig
City Manager

Attachments:

A. Comment letter regarding DSSEIR from the City of Laguna Beach's traffic consultant, Smith Engineering and Management, dated September 7, 2012

cc: Laguna Beach City Council
Irvine City Manager
Caltrans Director – Region 12

SMITH ENGINEERING & MANAGEMENT

September 7, 2012

City of Laguna Beach
Attn: John Pietig, City Manager
505 Forest Avenue
Laguna Beach, CA 92651

Subject: Heritage Fields Project 2012 GPA/ZC Draft Second Supplemental Environmental Impact Report – State Clearinghouse # 2002101020

Dear Mr. Pietig:

On behalf of the City of Laguna Beach (hereinafter the "City"), I have reviewed the Draft Second Supplemental Environmental Impact Report (hereinafter the "DSSEIR") for the Heritage Fields Project 2012 GPA/ZC (hereinafter the "Project"). My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and 44 years of traffic and transportation engineering consulting practice. I have both prepared and reviewed the traffic and transportation components of numerous CEQA environmental documents. I have previously commented on numerous environmental impact reports prepared by the City of Irvine as the Lead Agency. My professional resume attached hereto as Exhibit 1. My detailed comments on the subject DSSEIR follow. A15-49

The DSSEIR Fails to Assess Potential Traffic Impacts to Laguna Beach

Laguna Beach's most fundamental, though not exclusive problem with the DSSEIR is its failure to address potential traffic impacts on Laguna Beach. Laguna Beach is impacted by serious weekend traffic problems due to influx of residents from outside the City to the beaches and recreational attractions within the City. The Project has the potential to exacerbate traffic impacts in Laguna Beach because it involves an addition of residential development in exchange for a reduction in non-residential development. The problem from Laguna Beach's perspective is that residential uses generate weekend recreational travel trip A15-50

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productions while non-residential uses generate few or no weekend recreational trip productions. The DSSEIR is defective in that:

- It only analyzes the Project's impacts on traffic for the weekday daily and am and pm peak periods, not for the weekend when the consequences of the land use changes would impact Laguna Beach traffic;
- It terminates the study area for the Project's traffic analysis just short of the point where State Route 133 narrows down from a 4-lane highway to a 2-lane conventional highway, thereby cutting off analysis just short of the point where traffic impacts are obviously more likely to occur; and
- It terminates the study area in this manner, in spite of evidence that significant traffic impacts just beyond the study area are likely to occur. The DSSEIR traffic study discloses that the intersection of SR 133 with the SR 73 north ramps is at a v/c of 1.00 (absolute maximum of acceptable LOS E) in the existing condition during the am peak. The fact that the intersection is already at the absolute maximum of acceptable LOS indicates that if the Project were to cause just a slight addition to traffic there, it would have a significant impact. This existing condition so close to the boundary of the Study Area should have been a red flag to the City of Irvine and its consultants that the study should analyze conditions farther to the south in the SR 133 corridor.

A15-50 cont'd.

The City of Irvine and its consultants involved in preparing the DSSEIR knew or should have known of Laguna Beach's concerns in this matter.

- The weekend recreational traffic problem has been the subject of two studies carried on by the City of Laguna Beach in conjunction with the Orange County Transportation Authority, of which the City of Irvine is a member agency.[1]
- The fact that residential use would generate weekend recreational trip productions while non-residential uses would generate few or none is an obvious consideration known to competent transportation professionals.
- As noted above, the fact that a quantity of added traffic is more likely to impact a State Highway segment that is narrowed to two lanes rather than the four-lane segment immediately upstream (in terms of proximity to the Project) is obvious.
- The aforementioned existing 1.00 v/c condition (absolute maximum of acceptable LOS) in the am peak at the intersection of SR 133 with the SR

A15-51

[1] *City of Laguna Beach Final Report for OCTA Go Local Program Step One,* City of Laguna Beach and Dan Boyle & Associates, 2008., and *OCTA Go LocalProject V Step 2 Service Planning, Subregion 4: Irvine Metrolink Station*, City of Laguna Beach and HDR Engineering, Inc., February, 2011. The City requests that the City of Irvine include these reports in the administrative record for the Project.

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73 north ramps should have alerted the City of Irvine and its consultants to consider potential impacts farther south in the SR 133 corridor.

- Traffic counts posted on Caltrans internet web site reveal that in 2011 the segment of SR 133 south of its intersection with El Toro Road carried an annual average daily traffic of 37,000 vehicles and a peak month daily traffic of 41,000 vehicles. According to the City of Irvine's own road segment criteria, these volume levels are respectively at v/c ratios of 2.85 and 3.15 (maximum acceptable is a v/c of 1.00), values certainly indicative of the potential for impact by the project, had the City of Irvine bothered to consider the obvious in consideration of a neighboring jurisdiction.[2]
- According to a statement of a competent professional observer who travels the roads from El Toro Road near Aliso Creek Road on to Laguna Beach via Laguna Canyon Road on a daily basis both weekdays and weekends, during the summer months on the weekends, the traffic on El Toro Road and Laguna Canyon Road is particularly congested. The traffic backs up to the 73 on El Toro Road beginning around 11 am and continuing until around 3 going into Laguna Beach. If it is particularly hot, the traffic will back up earlier around 10 am. If one takes the 73 ramp from El Toro Road to get to Laguna Canyon Road, the traffic is backed up on Laguna Canyon Road as far as the eye can see toward I - 405. On occasion, when coming down Laguna Canyon Road from I - 405, the traffic going into Laguna Beach is backed up to the Laguna Lakes. Others report that they have seen Laguna Canyon Road backed up to I - 405. This is the typical scenario on hot sunny weekends during the peak summer month of July through the beginning of August. The weekend traffic backup has been occurring earlier in the mornings this year than in the past couple of years."[3] Given the highly visible nature of the problem, the potential for Project traffic impacts clearly was known or should have been known to the City of Irvine and its' consultants.

A15-51 cont'd.

The Project Has the Potential To Significantly Impact Traffic In Laguna Beach

The currently proposed revision to the Project involves adding 4606 dwelling units (including density bonus units) plus an option for another 1200 units (including density bonus units) for a net of.5806 residential units. The overall Heritage Fields Project as revised in 2011 involves 4894 residential units (including density bonus units. Considered as the whole of the project, it potentially adds a total of 10,700 residential units.

A15-52

[2] The City of Laguna Beach has current traffic counts indicating that August, 2012 traffic volumes range from 38,400 to 40,700 vehicles on weekdays and 40,400 vehicles on Saturdays on the subject section of SR 133 (Laguna Canyon Road), indicative that the Caltrans-posted volumes may be conservatively low. Also, , the peak month for traffic congestion on SR 133 is July, not late August.

[3] Exhibit 2 details the areas of congestion described overlaid to DSSEIR Figure 5.12-1.

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If, on a summer Saturday, occupants of just one in twenty of the 5806 units the current DSSEIR Project would add generated a trip to the South Coast beaches or South Coast recreational areas, this would potentially add 581 trips (going and returning) to the capacity challenged segment(s) of SR 133. This would increase the v/c on the already deficient segment of SR 133 south of El Toro Road by a v/c of 0.049, **more than double the 0.02 change the City of Irvine ordinarily considers to be significant** in such circumstances. If the whole of the Heritage Fields residential development is considered, the same weekend visitation by members of 1 in 20 of these households in the Project would generate an added 1070 trips on the capacity-challenged segment of SR 133. This would change the v/c ratio on the subject segment south of El Toro Road by a v/c of 0.09, **more than 4 times the 0.02 increase the City of Irvine considers significant** in already deficient conditions. Thus, the Project has the potential to significantly impact traffic in Laguna Beach. (And the above values do not even consider the added recreational traffic of other residential projects the City of Irvine has recently approved or has pending approval, such as the 753 unit Laguna Altura project and the 1206 unit Irvine Spectrum Center.)

A15-52 cont'd.

Data Disclosed in the DSSEIR Reinforces Prior Concerns That Irvine's Traffic Forecast Procedures and the Resultant Forecasts Are Unreliable and Inadequate

While the use of complex traffic models have become standard practice for determining the significance of a proposed project's traffic impacts, such models or the way that they are used can be flawed in fundamental ways, thereby producing inaccurate results concerning impacts. The complexity of the ITAM, the traffic forecast and analysis model used by Irvine, tends to obscure and conceal information regarding potential traffic impacts – making them nearly impossible to discern for the general public, and only obvious after careful scrutiny by a trained transportation engineer.

In past comments this writer has made regarding traffic studies of environmental impact reports prepared by the City of Irvine as Lead Agency, we have objected to Irvine's practice of passing proposed project traffic through a full forecast run of Irvine's traffic forecast and analysis model, ITAM, and its' post-processors, instead of overlaying an estimate of proposed project traffic atop forecasts of non-project traffic generated through the ITAM model for the various future year traffic scenarios. The objections are based on:

A15-53

- Concern that running the entire "with-project" scenario excessively optimizes both non-project and proposed project traffic's use of the roadway system in reaction to the Project traffic presence,
- Concern that running proposed project traffic through ITAM's post-processors unreasonably factors-down proposed project traffic

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contributions on key roadway segments, ramps, and intersection where the ITAM model is high in validation runs (treating what should be the proposed project's discrete traffic contributions as if they were a product of ITAM model error). This concern is particularly pronounced where segments/intersection approaches are subjected to very high percentage validation error adjustments.

- Concern that passing proposed project traffic through the ITAM post-processors that estimate intersection turn movements results in dispersal over multiple turning movements what should be discrete proposed project traffic contributions to specific turn movements.

Each of these considerations tends to reduce the likelihood of proper disclosure of Project traffic impacts. The traffic analysis for this Project appears to repeat these problems.

Although nothing has apparently been done about excessive optimization and dispersal of turning movements, in response to our previously expressed concerns, in its preparation of the environmental documents for the IBC Vision Plan, the City of Irvine agreed to eliminate use of the "Ratio Method" of adjustment for model validation error in instances where the ITAM validation forecasts were higher than actual counts. The Ratio Method was the instrument that applied the inappropriate factoring-down of Project traffic contributions when the "with project" scenario was run through the entire ITAM model and its post-processors in prior environmental reviews. Please confirm that the ITAM procedures employed in the current subject DSSEIR has continued to eliminate use of the "Ratio Method" of adjustment for model validation error. If not, we consider this a critical flaw in the analysis.

A15-53 cont'd.

The current DSSEIR gives direct evidence of the inaccuracies and concealment of impacts inherent in the above discussed ITAM model procedures and Irvine's preferred practice of measuring proposed project impacts versus an entirely hypothetical and synthetically derived future baseline generated through the ITAM model instead of using as the baseline the existing environment as demanded by CEQA Guidelines 15125(a), as discussed in the subsequent section.

As noted previously, the existing condition analysis indicates an existing a.m. peak hour v/c ratio at the intersection of SR 133 and the SR 73 north ramps (intersection 322 in the analysis) of 1.00. The 2015 No Project baseline indicates that the a.m. peak hour v/c would have a v/c ratio of 0.73, more than a 25 percent *improvement* from the existing condition – this despite 3 years of traffic growth from approved entitlements assumed to be completed by 2015. DSSEIR Appendix I (the traffic study) and its supporting sub-appendices do not indicate that there would be any improvements at or affecting traffic at this intersection, nor any improvements errantly assumed in the calculations. The ITAM model for

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2015, despite all the projected growth between 2011 and 2015, simply underestimates actual existing traffic in this corridor (to say nothing of the added additional traffic it should include) by 20.3 percent. Obviously, there is something fundamentally wrong with the 2015 baseline traffic forecasts, particularly in this corridor critical to the City of Laguna Beach. Please provide a detailed, reasoned response to this comment, supported by substantial evidence.

A15-53 cont'd.

The DSSEIR's Effort To Comply With CEQA Guidelines section 15125(a) Is Inadequate. The DSSEIR's Compilation of Traffic Impacts Based on a Flawed Hypothetical Compilations of Future Baselines Understates Project Traffic Impacts.

CEQA Guidelines section 15125 (a) states that the ordinary baseline for assessing a project's impacts is the environmental conditions that exist at the time of the NOP. Although the DSSEIR performs an analysis of how the Project would alter and impact the existing traffic environment, the DEIR did not satisfy CEQA's requirement to disclose mitigation for those impacts. Furthermore, it dismisses the analysis as a hypothetical exercise.

CEQA does allow consideration of a near-term future baseline where substantial traffic from projects already approved but not yet constructed at the time of the time of the NOP can be reasonably expected to be additive to existing traffic measured at the time of the NOP by a near-term future date. The effects of roadway improvements funded for completion by the near-term date can also be included in the near-term future baseline. The problem with the DSSEIR's 2015 traffic baseline is not that it is Year 2015. The problem is that the 2015 No Project baseline is an entirely hypothetical and synthetic creation by the ITAM traffic model that has no actual direct connection to the measured existing traffic conditions. The ITAM model as it is structured and applied does not only account for the added traffic from intervening development and for the betterment of committed roadway improvements. It completely adjusts the origin-destination patterns and route choices of existing roadway users to re-optimize their patterns under future baseline conditions, a generally unlikely and unrealistic happening over the short term. Such a re-optimization might be warranted if the roadway improvements expected to be completed in the intervening four years between 2011 and 2015 included an entirely new freeway, expressway or tollway. But with intervening year roadway projects confined to spot improvements, no such re-optimization is justified. Spot improvements at scattered locations simply don't provide the significant changes in accessibility needed to induce a broad mass of population, people with established travel habits, to change places of employment, places where they shop, take meals, visit friends or recreate. The substantial inaccuracy of the DSSEIR's 2015 baseline revealed for the intersection of SR 133 with the SR 73 north ramps (discussed in the section above) and the fact that the 2015 No Project baseline on SR 133 is 10,000 daily

A15-54

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trips lower than the 2011 existing traffic volume (as discussed in the section that follows) are illustrative of the type of problems that occur when the instrument that synthesizes a hypothetical future baseline is allowed to break contact with the measured traffic environment that existed at the time of the NOP. A15-54 cont'd.

The Errors and Inconsistencies in the DSSEIR Traffic Analysis in the SR 133 Corridor toward Laguna Beach Are Indicative of an Effort that Falls Short of the Good Faith Effort To Disclose Impacts Demanded By CEQA

In addition to cutting off the study area boundary just short of the clearly capacity-challenged and congested section of SR 133 south of El Toro Road, and the failure to take note of and correct the unwarranted and inexplicable improvement in v/c and LOS in the 2015 No Project baseline over the 2011 Existing Condition described in sections above, there are other circumstances that indicate an apparent lack of care in the analysis of the SR 133 / El Toro Road corridor near the traffic study area boundary nearest Laguna Beach. These include:

- No analysis of freeway interchange ramp volumes and queuing for the SR 73 ramps at SR 133 or at El Toro Road.
- The DSSEIR traffic study indicates that El Toro Road between SR 73 and SR 133, which is presently a 2-lane undivided road, is considered a 2-lane *divided* road in the 2015 baseline and with-Project analyses. According to Appendix I, Table 4-5, there is no programmed improvements for the intervening period that would create this change. A15-55
- The DSSEIR shows SR 133 carrying 44,000 daily vehicle trips south of I-405 in the existing condition but only 34,000 daily vehicle trips at the same location in the 2015 No Project Scenario. There is no reasonable justification for this 10,000 vehicle (23 percent) drop in traffic, particularly considering the non-project growth in the area over the intervening years. This type and scale of anomaly completely undermines the credibility of the 2015 No Project synthetic traffic projection as an adequate baseline for the analysis.

The number of oddities in the corridor toward Laguna Beach calls to question, at least in this area of the analysis, whether the DSSEIR analysis is consistent with the good faith effort to disclose impact that CEQA demands.

The Whole of the Project Is Not Evaluated and Has Never Been Evaluated Since 2003

Since the project was initially adopted in 2003, it has been modified in a number of incremental changes. Impacts of each increment of project modification have only been evaluated against the baseline of the project in its immediately previous modified edition. This incremental approach to evaluation of change in A15-56

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the project minimizes the chance that any one increment of modification will be found to have significant traffic impacts. Even at locations disclosed to be already in deficient condition, the incremental change approach to evaluation makes it far less likely that any one evolution of the project would cause the minimum percentage change in v/c ratio to be considered significantly impactful.

But the actual traffic-related differences between the project as it would be comprised with all the modifications through the subject 2012 Project versus the project as approved in 2003 are stark. When we compare the trip generation of the land uses quantities approved in 2003 to the project as it would be comprised with all the modifications to and including the proposed 2012 Project (including the optional conversion alternative) using as a common trip generation rate the ITAM rates relied upon in the current DSSEIR, we find that the net project in 2012 generates more than 40,000 daily trips more than the project approved in 2003 (an over 20 percent increase), some 3000 more trips in the am peak hour (over a 30 percent increase), more than 3800 added trips in the pm peak hour (over a 33 percent increase).

A15-56 cont'd.

The changes in land use from 2003 through the 2012 Project also involve major changes in traffic flow patterns. The 2003 uses had a 64 percent inbound /36 percent outbound flow pattern to/from the project site in the am peak; the uses as modified through the 2012 Project would have a 45 percent inbound / 55 percent outbound flow pattern in the am peak. In other words, there is a reversal of the dominant direction of flows and overall shift of 19 percent in the direction of flows in the am peak hour. The pm situation is similar but less pronounced. The 2003 project had 43 percent inbound / 57 percent outbound flow pattern to/from the site in the pm peak: with modification through the 2012 Project, the dominant pm flow direction is reversed to inbound with 51 percent inbound /49 percent outbound.

It is obvious that at this point the public deserves a complete accounting of the consequences of the entire changes in the project that have occurred, not just an assessment of the latest piecemeal modification that is proposed.

Please Clarify the Assumed Person-Occupancy for the Various Types of Dwelling Units Proposed in the Project and the Basis of Those Assumptions

The ITAM traffic model's socioeconomic trip generation rates for many trip types, including 'home based work trip productions', 'home based shop trip productions', 'home based other trip productions', 'home based university trip productions', home based school trip productions' and 'other based work trip productions', are all functions of either population or employed residents. The assumptions of both population and employed residents in each traffic analysis

A15-57

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zone are directly driven by the assumptions of person occupancy per dwelling unit. Significantly higher person-occupancy per dwelling unit translates directly to significantly higher trip generation for traffic analysis zones where residential units are located.

Please explain what the assumed person-occupancies are for the various dwelling unit types proposed in the Project area and what the basis of those assumptions are. If the occupancy of residential uses was underestimated, then the trips these uses would generate were also underestimated, resulting in an under-reporting of the Project's traffic impacts.

A15-57 cont'd.

Please Explain the Basis for the ITAM Model Trip Distribution Showing that Only 1 Percent of Project Trips Would Be in the SR 133 Corridor South of I-405 Oriented From/Toward Laguna Beach

Project trip distributions show that only 1 percent of Project trips would be in the SR 133 corridor south of I-405. The DSSEIR and its Appendix I traffic study state that the ITAM model is the source of this trip distribution. This percentage seems quite low, prompting the questions of whether (1) the trip distribution within ITAM for the traffic analysis zones comprising the Project area might be a vestige within the model of the recent past when those zones held little or no dwelling units available to the general public and (2) the weekend recreational trips are considered in this analysis. What is the trip distribution for the nearest traffic analysis zones to the Project site (and specifically to the SR 133 corridor south of I-405) that have held substantial numbers of dwelling units available to the general public for a decade or more?

A15-58

The Greenhouse Gas Analysis Assumptions May Be Inconsistent With the DSSEIR Traffic Study Analysis

The DSSEIR greenhouse gas analysis states on page 5.4-15 that "it would be assumed that there would be only a 25 percent reduction in VMT" through trip capture. How does this relate to the DSSEIR's traffic study? We find no reference in Chapter 5-12 (the traffic impact analysis) nor in Appendix I (the supporting traffic impact study) to "trip capture". Are there some underlying assumptions in the DSSEIR traffic study about "trip capture" (passerby-attraction discounts, internal trip discounts or other reasons) that are not clearly disclosed? If yes, what is the basis supporting these assumptions. If not, why should the greenhouse gas analysis assumptions not be considered inconsistent with those of the traffic study. Why didn't the greenhouse gas study use projections of VMT straight out of ITAM?

A15-59

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One Possible Approach to Mitigating the Project's Traffic Impacts Is to Reduce the Project's Size

Irvine should consider a reduction in the Project's size as a means of avoiding its potential traffic impacts. Although the Project trip neutrality is based on the misleading premise that it merely involves a swap of a quantity of non-residential land use entitlement for a quantity of residential land use entitlement. The analysis assumes that this swap is purportedly 'trip generation equivalent'. This is because the residential entitlement includes the potential for 'density-bonus units' that are not considered in the trip equivalency of the swap. These density-bonus units produce a completely additive trip generation. One way to achieve mitigation of the Project is by reducing its overall trip generation. A fair and reasonable way to do this is to consider the number of potential density-bonus units within the math of the trip-equivalent non-residential to residential use swap. A15-60

The DSSEIR Traffic Impact Analysis Fails To Assess the Impacts of The Proposed Change To General Plan Objective B-1, Policy (c)

The Project includes a modification of General Plan objective B-1, Policy (c) to allow a deterioration in the designated acceptable level of service (LOS) at intersections meeting certain criteria from the previous LOS D level to the proposed LOS E level within Planning Areas 13, 31, 32, 34, 35, 39 and a portion of 51 south of Marine Way. The conditions under which LOS "E" would be acceptable include preparation and approval of a specific traffic study of the location, absence of any residential quadrants at the intersection except for residential developments having a net density of 30 units per acre or greater and the project must participate in funding an upgraded traffic signal system. Intersections along Sand Canyon would continue to have LOS D as the acceptable standard except those at the Sand Canyon/I-5 interchange ramps where the proposed LOS E standard would be in effect. Although only the portion of the Project within the part of Planning Area 51 south of Marine Way is actually within the area affected by the proposed LOS Policy Change, the area affected by the policy change borders the Project area on its south, southeast and southwest sides and almost entirely surrounds the portion of the Project within Planning Area 30. Because of this adjacent proximity that comprises a border to roughly half the Project's planning area(s), a large percentage of will traverse the areas affected by the proposed policy change. Consequently, the policy change alters how the impacts of traffic the Project adds on its south, southeast and southwest flanks will be interpreted. A15-61

The DSSEIR provides no analysis of this change such as how many and which intersections intersections would be allowed to deteriorate to LOS F, nor does it quantify the net dis-benefit to the traveling public that would result from the

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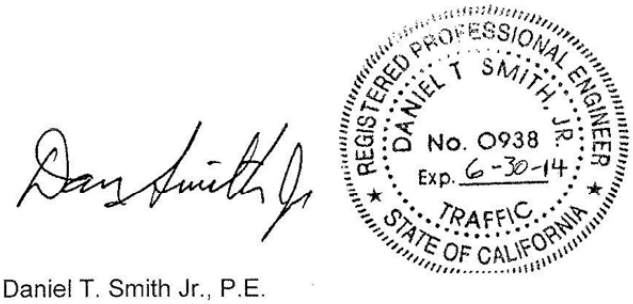
proposed deterioration of LOS standards. Such an analysis must be provided for the DSSEIR to be adequate. Also, this change in standards issue must be evaluated in the context of the whole development of Heritage Fields, not just the limited land use changes that are the principal subject of the DSSEIR analysis. A15-61 cont'd.

Conclusion

This completes my current comments on the DSSEIR. As documented in the detailed comments above, the DSSEIR traffic analysis and documentation is inadequate and must be revised and recirculated again in draft status. A15-62

Sincerely,

Smith Engineering & Management
A California Corporation



Daniel T. Smith Jr., P.E.
President

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EXHIBIT 1

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil)
California No. 938 (Traffic)
Nevada No. 7969 (Civil)
Washington No. 29337 (Civil)
Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety

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plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

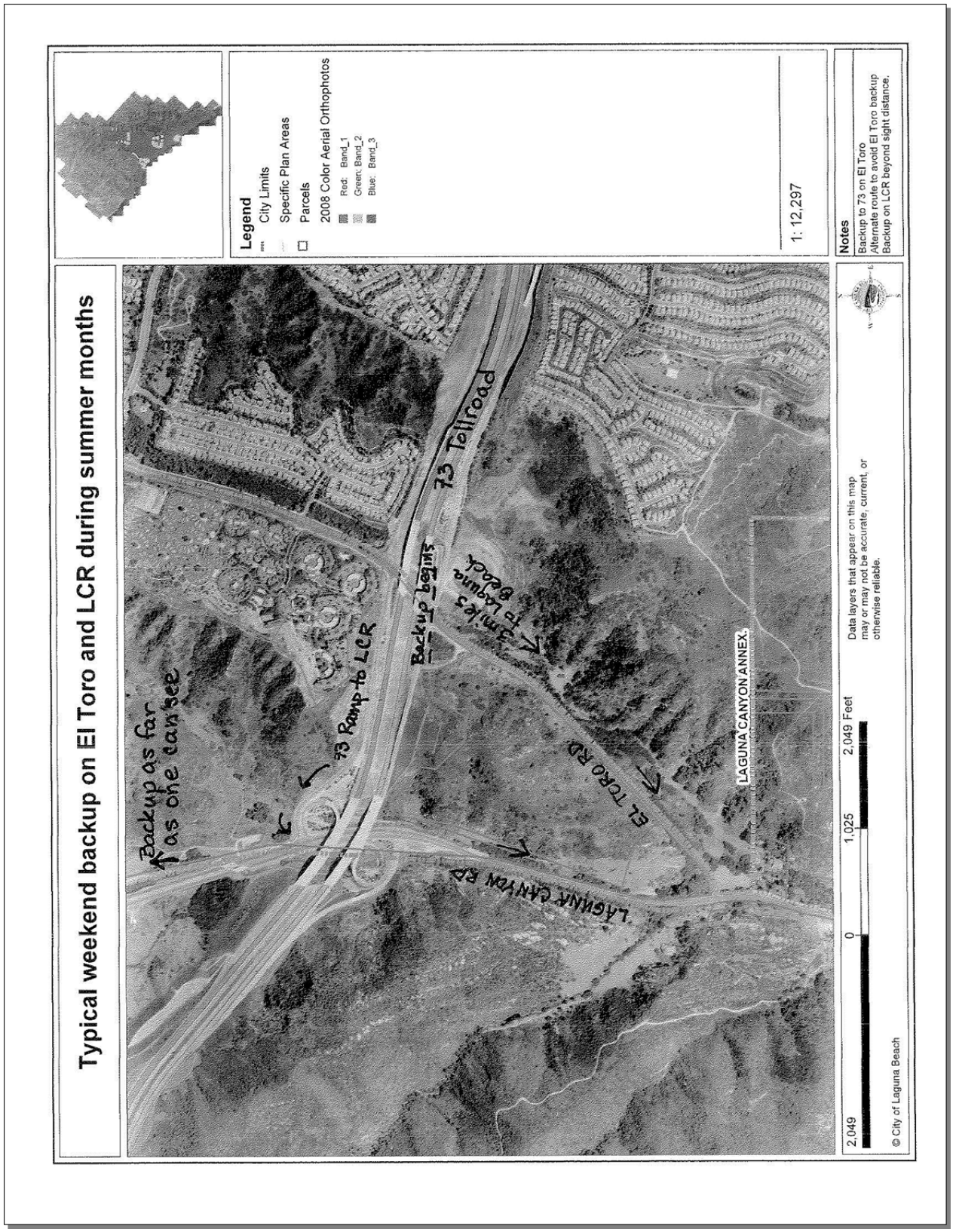
Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

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Typical weekend backup on El Toro and LCR during summer months
Backup as far as one can see
73 Ramp to LCR
Backup begins
73 Tollroad
7 miles to Laguna Beach
EL TORO RD
LAGUNA CANYON RD
LAGUNA CANYON ANNEX
Legend
City Limits
Specific Plan Areas
Parcels
2008 Color Aerial Orthophotos
Red: Band_1
Green: Band_2
Blue: Band_3
1: 12,297
Notes
Backup to 73 on El Toro
Alternate route to avoid El Toro backup
Backup on LCR beyond sight distance.
2,049
0
1,025
2,049 Feet
Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
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A15. Response to Comments from John Pietig, City Manager, City of Laguna Beach, dated September 7, 2012.

A15-1 The commentator provides introductory comments that summarize the structure of its letter and its overall arguments. These comments are general in nature, and no response is required.

A15-2

a. The commentator recites two of the basic purposes of CEQA. This comment is general in nature, and no response is required.

b. The commentator asserts that the DSSEIR does not provide sufficiently clear and concise information regarding the specific sections of the 2011 Certified EIR upon which DSSEIR relies upon. Section 3.1 (pages 3-10 to 3-14) describes the 2003 OCGP EIR, the eight addenda and the 2011 SSEIR. Then, in each of the impact areas in Chapter 5, the DSSEIR describes the conclusions of the 2011 Certified EIR, any applicable mitigation measures, plans, policies and programs, and project design features, and provides exact page references, where applicable. Moreover, CEQA does not require that lengthy documents such as the ten previous environmental analyses be described in great detail or included as appendices, CEQA encourages reducing the size of an EIR by citation to other documents (CEQA Guidelines § 15148) and by incorporation by reference (id. § 15150), which was done here. The City has these documents and, as the SSEIR states, they are, and have been since the release of the DSSEIR, available for review and copying at the City's Community Development Department at the address listed on page 2-6 of the DSSEIR and in the City Clerk's records. Additionally, the City has these documents in electronic form and has made them immediately available upon request throughout the review process.

c. The commentator states that the DSSEIR fails to explain how the 2012 Modified Project has changed from that analyzed in the 2003 OCGP EIR. A comparison to the project described in the 2003 OCGP EIR is inappropriate, since that project is not the baseline (see Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR). Changes from the 2003 OCGP EIR are described and analyzed in detail in the environmental reviews referenced in the 2011 Certified EIR which is in turn incorporated in this DSSEIR. The DSSEIR discusses the 2003 OCGP EIR on page 3-10.

d. The commentator also states that the DSSEIR fails to explain how the 2012 Modified Project differs from the 2011 Approved Project and the rationale for these changes. Chapter 3, Project Description of the DSSEIR, contains extensive discussion of the 2011 SEIR Approved Project (plus each of the eight Addenda) (pp. 3-10 to 3-14). The DSSEIR then goes on to list in great detail a description of the components of the 2012 Modified Project (pp 3-14 to 3-20), including the individual components of the General Plan Amendment (pp. 3-21 to 3-22) and the Zone Change (pp. 3-22 to 3-31), and includes maps and figures. Then, the DSSEIR explains each of the project design features that are part of the 2012

Modified Project, including a description of those that were not part of the 2011 SEIR Approved Project (pp. 3-31 to 3-34). Then, the SSEIR compares the 2012 Modified Project against 2011 Approved Project, thereby discussing the differences.

e. The commentator states that the DSSEIR fails to analyze "all of the Project's impacts" and that it "does not even describe all of the Project's features." These comments are vague, and the City is unable to determine what features or analyses might be lacking. All of the features of the 2012 Modified Project" are described in Chapter 3, Project Description, of the DSSEIR. See Topical Response 1, Project Description, in Chapter 2.0 of this FSSEIR.

f. The commentator states that the alternatives analysis in the DSSEIR was "impermissibly limited" and that the DSSEIR should have included an alternative that "would not increase the approved overall cap on residential development." With respect to the range of alternatives, see Hawkins Response A16-54(c). Further, the DSSEIR did include an alternative that would not increase the approved overall cap: the no project alternative.

g. The commentator makes a general comment regarding the deficiencies in the DSSEIR and recirculation. With respect to recirculation, see CDFG Response A13-6. The other comment is general in nature, and no response is required.

A15-3 The commentator asserts that the City did not adequately consult with the City of Laguna Beach ("Laguna Beach") on the preparation of the SSEIR and claims that the City did not give sufficient public notice regarding the 2012 Modified Project. With respect to the public review period for a Draft EIR under CEQA, the California Public Resources Code, section 21091, subd. a. states that for a draft environmental impact report which is submitted to the State Clearinghouse for review, the review period shall be at least 45 days. See also Section 15105, subd. (a) of the State CEQA Guidelines.

Also, Section 15203 of the State CEQA Guidelines, addresses "Adequate Time for Review and Comment" and states:

> "The Lead Agency shall provide adequate time for other public agencies and members of the public to review and comment on a draft EIR or Negative Declaration that it has prepared.
>
> (a) Public agencies may establish time periods for review in their implementing procedures and shall notify the public and reviewing agencies of the time for receipt of comments on EIRs.
>
> These time periods shall be consistent with applicable statutes, the State CEQA Guidelines, and applicable Clearinghouse review periods."

As stated in the DSSEIR (Chapter 2, *Introduction*, pp. 2-2 to 2-4), the City issued a Notice of Preparation ("NOP") for the SSEIR on April 3, 2012. The City sent a copy of the NOP to the State Clearinghouse and provided the statutorily mandated NOP review period of 30 days, which occurred between April 4, 2012 and May 4, 2012. The NOP was also published in the Orange County Register newspaper on April 4, 2012. The City also provided the NOP to all abutting cities, in accordance with the law. Laguna Beach, however, did not receive the NOP because Laguna Beach does not abut Irvine. (Note, the commentator cites California Government Code section 65352, subd. (a)(1), which relates to referral of General Plan amendments, not CEQA.) In response to the NOP, the City only received six written comment letters, none of which was from the commentator.

The City also held a scoping meeting to obtain public comment regarding the preparation of the SSEIR. There was a separate notice sent to interested parties and residents and owners within 500 feet of the project site. Notice for the scoping meeting on April 19, 2012 was also posted on the City's bulletin boards. The scoping meeting had a small turnout, and the commentator did not attend.

Given the minimal number of letters received in response to the NOP and the low scoping meeting turnout, the City did not have any reason to believe that additional public notice or consultation were needed.

All of the meetings were duly noticed and there were a number of related newspaper articles all available in the commentator's area. Taken all of these facts together, the City had no reason to believe that any special consultation was necessary for the 2012 Modified Project. Indeed, when Laguna Beach requested additional time to respond to the DSSEIR, the City extended the comment period for two weeks. Moreover, the City made the DSSEIR available to the commentator in electronic form two days after the comment period commenced. To the extent that the commentator claims that the City should have conducted additional consultation based on traffic impacts, there was substantial evidence that there would be no traffic impacts in Laguna Beach (see Response A15-31, below).

A15-4

a. The commentator asserts that the SSEIR improperly tiers off the 2011 Certified EIR. As the commentator acknowledges, the 2003 OCGP EIR is a program EIR (see CEQA Guidelines § 15168), which analyzed the impacts of the development of 3,625 residential units and approximately 6,585,594 million square feet of non-residential intensity within Existing PAs 51 and 30. (SSEIR, Chapter 2, Introduction, p. 2-1.) Typical of many program EIRs, the 2003 OCGP EIR analyzed certain impacts in greater detail than others because more information was available for analysis with respect to certain impacts than others. For example, noise impacts were analyzed in Section 5.4 of the 2003 OCGP EIR to the extent those impacts could be determined; however, since the exact type, amount and location of the project stationary noise sources were undetermined at that time, the long-term impacts of those noise sources could only be analyzed qualitatively. (2003 OCGP EIR, Section 5.4, Noise, p. 5.4-24.)

Subsequently, Addenda 1 through 7 implemented or changed the development analyzed in the 2003 OCGP EIR and approved in May of 2003. Because, among other things, several of the Addenda analyzed proposed changes that included a General Plan Amendment, tiering was not appropriate for these later analyses. (See CEQA § 21094(b); CEQA Guidelines § 15152(e).) In accordance with CEQA Guidelines § 15168(c), in each case, it was determined that, pursuant to CEQA Guidelines § 15162 no new effects could occur or no new mitigation measures would be required by the proposed modifications to the previously approved development. It was therefore determined that the modifications were within the scope of the project covered by the 2003 OCGP EIR and previously adopted Addenda (if any), adopted the subject Addendum and approved the modifications. (See SSEIR, Chapter 3, Project Description, pp. 3-10 through 3-13.)

In effect, the modifications became a part of the full EIR. In fact, by the process required by CEQA Guideline §15168(d), the 2003 OCGP EIR and Addenda 1 through 7 were thus defined as the "Certified EIR" in the 2011 SEIR. The "Certified EIR" was then used as the basis for the Initial Study for determining, pursuant to CEQA Guidelines § 15162, the need for preparing a supplemental EIR for the changes proposed by the 2011 SEIR Approved Project, and to focus the 2011 SEIR on solely new effects which had not been considered before. Finally, pursuant to the process required by CEQA Guidelines § 15168(c), in Addendum 8, it was determined that, pursuant to CEQA Guidelines § 15162, no new effects could occur or no new mitigation measures would be required by the proposed modifications to the previously approved development. It was therefore determined that the modifications were within the scope of the project covered by the 2003 OCGP EIR, the seven previously adopted Addenda and the 2011 SEIR, adopted Addendum 8 and approved the modifications proposed. (See SSEIR, Chapter 3, Project Description, p. 3-14.) Because CEQA section 21166 applied, tiering was not appropriate. Again, the 2003 CEQA EIR, the seven previously adopted Addenda, the 2011 SEIR and Addendum 8 thus became the "EIR" for the Project as revised.

b. The commentator asserts that the documents comprising the 2011 Certified EIR were incorrectly incorporated by reference into the SSEIR, citing to pages 2-5 and 2-6 of Chapter 2, Introduction, of the SSEIR. The commentator has missed the discussion of those documents included in Chapter 3, Project Description, on pages 3-10 through 3-14. CEQA does not require that lengthy documents such as the ten previous environmental analyses that comprise the 2011 Certified EIR be included in the appendices to the SSEIR; rather, CEQA encourages reducing the size of an EIR by citation to other documents (CEQA Guidelines § 15148) and by incorporation by reference (id. § 15150), which was done in the 2011 Certified EIR. The City has these documents and, as the SSEIR states, they are, and have been since the release of the DSSEIR, available for review and copying at the City's Community Development Department at the address listed at page 2-6 of the DSSEIR and in the City Clerk's records. Additionally, the City has these documents in electronic form and has made them immediately available upon request throughout the review process. In addition, the analyses included in

the incorporated environmental documents are summarized in the SSEIR, in Chapter 2, Introduction, on page 2-1, and in more detail in Chapter 3, Project Description, on pages 3-10 through 3-14.

c. The commentator asserts that the SSEIR fails to acknowledge the findings of the 2011 Certified EIR with respect to significant and unavoidable impacts. The 2003 OCGP EIR identified significant and unavoidable impacts to Air Quality, Traffic, Population and Housing, and Agricultural Resources. The DSSEIR does explain why impacts to agriculture and population and housing would no longer be significant with the 2012 Modified Project. With respect to agriculture, Section 5.2, Agricultural Resources (p. 5.2-10) of the DSSEIR states that the 2003 OCGP EIR concluded that a significant and unavoidable impact would occur related to the loss of agricultural land. The DSSEIR further states that Addendum 5 found that "the City's General Plan Objective L-10 establishes the Irvine Agricultural Legacy Program to mitigate the loss of existing agricultural land throughout Irvine where development under the General Plan is designated to occur." Addendum 5 then concluded that the impact would no longer be significant. To the extent that the commentator believes that the City should have addressed the potential impacts of the 2012 Modified Project and the 2011 Approved Project, then the commentator is referred to Topical Response 2, Baseline, in Chapter 2.0 of this FSSEIR, regarding the proper baseline for the 2012 Modified Project. The SSEIR used a proper baseline.

With respect to population and housing, Section 5.9, Population and Housing (p. 5.9-8) states that the 2011 Certified EIR concluded that a significant jobs-housing impact would occur with the 2011 Certified EIR because although the job-housing balance was reduced to 3.37, it was still greater than Irvine's jobs-housing balances of 2.48. It is only with the 2012 Modified Project, where the jobs-housing balance is 1.85 or 1.49 (with the optional conversion), where the significant impact is reduced to a level of insignificance. The commentator states that there are greater impacts to population and housing, and that the SSEIR is "underestimating" them in this case. But, the 2012 Modified Project actually lessens the jobs-housing impacts as discussed in pages 5.9-12 to 5.9-13 of the DSSEIR.

Section 5.3, Air Quality (p. 5.5-13) and Section 5.11, Traffic, both acknowledge that significant impacts would occur in those impact areas for the 2011 Approved Project. For Air Quality, the DSSEIR then calculates the additional pollutants that would result from the 2012 Modified Project (Table 5.3-7, 5.3-8, and 5.3-9), thereby fully disclosing any impacts. For traffic, as discussed in Response A15-31, below, the 2011 Approved Project is already included in the traffic model, and all of the impacts are analyzed together.

Finally, the comments fail to acknowledge that, pursuant to CEQA section 21166 and CEQA Guidelines sections 15162 and 15163, the SSEIR properly analyzes the impacts of the 2012 Modified Project as compared to the impacts of the 2011 Approved Project as analyzed in the 2011 Certified EIR, because the baseline for the SSEIR is the 2011 Approved Project. See Topical Response 2, Baseline in

Chapter 2.0 of this FSSEIR, regarding the proper baseline for the 2012 Modified Project.

A15-5 The commentator asserts that the SSEIR used an incorrect baseline for its analyses, and that the proper baseline for the SSEIR was either the existing conditions as of April 2012, the date the NOP was issued, or the development within Existing PAs 51 and 30 analyzed in the 2003 OCGP EIR. The correct legal baseline for the SSEIR's analyses is the 2011 Approved Project, as discussed in Topical Response 2, Baseline (see Chapter 2.0 of this FSSEIR).

A15-6

a. The commentator raises concerns regarding the locations of development on the VTTMs. All of these VTTMs are part of the 2011 Approved Project, not part of the 2012 Modified Project. The commentator is referred to Figures 3-8 through 3-18 of the 2011 SEIR, which is incorporated by reference in the SSEIR. The following language will also be added to the Project Description:

> "Modifications to the five VTTMs approved as part of the 2011 SEIR Project are not being proposed as part of this application. If subsequent applications are determined to be inconsistent with the existing VTTMs at a future date, then amendments to those VTTMs will be processed, as needed. Appropriate additional CEQA analysis will be performed at that time."

b. The commentator raises concerns regarding piecemealing. As discussed in Topical Response 2, Baseline (see Chapter 2.0 of this FSSEIR), the SSEIR did not improperly piecemeal the project.

A15-7

a. The commentator raises concerns regarding piecemealing. As discussed in Topical Response 2, Baseline (see Chapter 2.0 of this FSSEIR), the SSEIR did not improperly piecemeal the project.

b. The commentator summarizes its arguments regarding potential impacts to Laguna Beach. All of these issues are discussed below, and no response is required. The commentator also claims that the Great Park is being transformed "from a public recreation resource into an area of intensive infill development." The commentator misunderstands the 2012 Modified Project, since the type, character and amount of recreational facilities in the Great Park is unchanged in the 2012 Modified Project.

A15-8 The commentator claims that the SSEIR should analyze "subsequent General Plan amendments." CEQA requires analysis of projects that are reasonably foreseeable. It is a basic tenet of CEQA that an environmental analysis "should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful

information for environmental assessment." (CEQA Guidelines, 15004, subd. (b); *No Oil v. City of Los Angeles* (1974) 13 Cal.3d 68, 77, fn. 5.) Nonetheless "[w]here future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences." (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 395 quoting *Lake County Energy Council v. County of Lake* (1977) 70 Cal.App.3d 851, 854-855.) The City cannot determine at this time whether the applicant or other property owners will request General Plan Amendments in the future and has no facts or evidence to suggest that such applications will or will not be likely to occur. Any future discretionary applications will be analyzed as required by CEQA.

A15-9 The commentator raises concerns about the language in the Project Description that states, "other modifications as necessary to implement the 2012 Modified Project." It was the City's intent that this language would be a "catch-all" for any non-substantive project elements which are consistent with the scope of analysis contained in the DSSEIR. For instance, the Wildlife Corridor Plan, included in the FSSEIR as Appendix C, implements a component of the 2012 Modified Project but does not involve environmental impacts beyond those identified in the DSSEIR. The Wildlife Corridor Plan provides additional details on the Proposed Wildlife Corridor Relocation but it is consistent with the location shown on Figure 3-5 in the DSSEIR. " If any other modifications proposed in the future are not consistent with the analysis in the DSSEIR, additional environmental review may be required pursuant to Section 21166 of CEQA and Section 15162 of the CEQA Guidelines.

A15-10

a. The commentator asserts that the SSEIR lacks analysis of the conversion of non-residential entitlement to residential uses. However, as discussed throughout Section 5.10 Public Services and Section 5.13 Utilities and Service Systems, potential impacts of the 2012 Modified Project (including the optional conversion up to 10,700 units) to police, fire, schools, water, sewer, etc. are fully addressed. The DSSEIR acknowledges that in many instances, residential development associated with the 2012 Modified Project will increase impacts to the service providers serving the 2012 Modified Project. However, as detailed in the DSSEIR, with mitigation these providers can accommodate the additional residential development. With respect to the optional conversion refer to Response A10-4. PDF 12-1 and Section 9-51-6(T) of the Draft Zoning specify that future traffic analysis will occur for the optional conversion, if necessary, and when the location, number and type of the residential units is determined.

b. The commentator asserts that the DSSEIR "also fails to disclose the Project's increase to previously disclosed significant and unavoidable impacts." The SSEIR discloses and takes into account all of the previously identified significant impacts, as discussed in Response A15-4, above.

c. The commentator raises issues related to the impacts of traffic resulting from the 2012 Modified Project, particularly as a result of the conversion of non-

residential development to residential development. The SSEIR fully analyzed the potential traffic impacts, including directionality, as discussed in TIC Responses A8-20 and A8-21. It should be noted that since the original approvals in 2003, the City has maintained an overall zoning code trip budget for Planning Areas 30 and 51. With the exception of State mandated density bonus units and the associated park and school facilities that will primarily serve the needs of Project residents, no additional daily trips have been added beyond the trip budget previously established for Existing Planning Areas 30 and 51. Moreover, the Traffic Impact Analysis fully analyzes and mitigates the impact of all trips ("Heritage Fields" and "Other Public Uses"), including these additional daily trips and shifts in peak hour directionality. Adequate levels of service are maintained through the Great Park area, as discussed in Section 5.12, Transportation and Traffic, of the DSSEIR. In addition, to the extent there are additional future conversions of non residential development to exceed 9,500 dwelling units, Project Design Feature 12-1 requires a traffic analysis to assess traffic impacts. Any conversion shall be restricted to equivalent traffic generation based on AM peak, PM peak, and ADT.

d. The commentator asserts that the DSSEIR fails to "describe the overall cap" in the 2003 OCGP EIR and to acknowledge that "Irvine had previously found [that] the overall development intensity would have significant and unavoidable impacts." Both of these issues are discussed in Response A15-4c, above.

A15-11 The commentator questions the DSSEIR's assumptions regarding jobs/housing balance and trip capture. As noted on Page 5.9-12 of the DSSEIR, Irvine is a jobs-rich community and additional residential projects help improve the balance between job-generating uses and homes. The 2012 Modified Project contains more residential units and less non-residential square footage than the 2011 Approved Project, and therefore it will contribute to improving the jobs-housing balance for the City of Irvine as a whole.

The 2011 Approved Project had a jobs-housing ratio of 16,510/4,894, or 3.37. The 2012 Modified Project has a jobs-housing ratio of 1.85 without the optional conversion or 1.49 with the optional conversion. As shown in Table 5.9-6 of the DSSEIR, the City had a jobs-housing ratio of 2.48, well above the industry standard for an ideal jobs-housing ratio in the range of 1.3 to 1.7. The additional housing proposed by the 2012 Modified Project, combined with the reduction in non-residential development intensity, would therefore assist the City in achieving a healthier jobs-housing balance, whereas the currently approved non-residential uses at the project site would attract commuters and visitors who live in other areas.

The results of the GHG analysis are based on the modified mix of land uses and are further corroborated in the ITAM project trip distribution patterns for various future year scenarios, which are shown on Exhibits 3-1 to 3-7 of the Traffic Impact Analysis.

With respect to local trips, the commentator is also referred to Response A15-46(a), below.

A15-12 Cumulative impacts

a. The commentator requests additional information regarding the cumulative projects listed in Section 4.5 of the DSSEIR. The Final SSEIR provides additional detail on the cumulative projects listed in Section 4.5 of the DSSEIR (see Chapter 4.0 of this FSSEIR).

b. The commentator asserts that the DSSEIR does not sufficiently analyze cumulative impacts in light of the fact that the area has historically been dominated by military base issues. It further asserts that the "2003 [OCGP EIR] permitted the conversion [of the El Toro Marine Base] to parks and recreation uses." To the extent that the commentator is asking the City to analyze the entire 10,700 dwelling units to be developed at the site as opposed to the 2012 Modified Project, which would add up to 5,806 dwelling units (including the optional conversion), then the commentator is referred to Topical Response 1, Project Description in Chapter 2.0 of this FSSEIR. As discussed therein, the 2011 Certified EIR has analyzed all of the vested entitlements to date. The commentator's statement regarding the "2003 [OCGP EIR]" is incorrect. The 2003 [OCGP EIR] analyzed the development of up to 3,625 dwelling units and approximately 6.5 million square feet of non-residential development in addition to the development of a regional park and recreational facility. (See DSSEIR p. 3-10.)

   The commentator also asserts that the 2012 Modified Project is converting existing recreational uses to non-recreational uses. The 2012 Modified Project does not propose any conversion of recreational uses to non-recreational uses, nor is there any language in Chapter 3, Project Description, that would suggest that such a conversion is occurring. The commentator is referred to Response A15-24, below, regarding uses that already exist in the Orange County Great Park.

c. The commentator claims that the cumulative impacts analysis should include the "approved 753-unit Laguna Altura project" and the development in PA 33 that would permit 1,206 dwelling units. The Laguna Altura Project is already included in ITAM and the development in PA 33 is included in the Traffic Impact Analysis as a pending project, so their cumulative effects have been taken into account.

d. The commentator asserts that the SSEIR must analyze cumulative impacts in all impact areas, not just for population and housing. The comment is general in nature and does not identify a particular area where the cumulative impacts analysis is lacking. Each impact area analyzed in Chapter 5 includes a cumulative impacts analysis.

e. The commentator states that "to the extent further residential development in the Great Park area, beyond the approximately 5,000 units associated with this Project, is reasonably foreseeable, the DSSEIR must analyze the impacts of that development on neighboring jurisdictions." As discussed above, each impact area

analyzed in Chapter 5 includes a cumulative impacts analysis, and Chapter 10 analyzes growth inducing impacts. The commentator cites Terminal Plaza Corp. v. City and County of San Francisco (1986) 177 Cal.App.3d 892 to support its statement. Terminal Plaza Corp. relates to a different issue. There the City of San Francisco adopted an ordinance that required construction of replacement units, rehabilitation of units, or payment of an in-lieu fee when a residential hotel was demolished or converted. (Id. at 889-890.) Unlike the case here, the City did not prepare an EIR for the ordinance. Beyond that basic difference, however, is the very nature of the development that is involved. In Terminal Plaza Corp., it was reasonably - in fact required - foreseeable that residents would be displaced and that new construction would have to occur elsewhere across the City to accommodate those residents. That future development was not questionable. Here, in addition to the list of cumulative projects that the SSEIR already analyzes, the commentator wants the SSEIR to analyze speculative future development across the City and region that may or may not occur. There is no basis for this type of analysis under CEQA nor is there any feasible way the DSSEIR could evaluate such uncertain development.

A15-13 The commentator asserts that there are deficiencies in the Land Use section related to cumulative impacts. This comment is very general in nature and does not allege any violation of CEQA. No further response is necessary.

A15-14

a. The commentator questions the DSSEIR's conclusions regarding compliance with the City's Housing Ordinance. Compliance with the City's applicable regulatory standards provides a basis for determining that the project will not have a significant environmental impact. (Tracy First v. City of Tracy (2009) 177 Cal.4th 912.) PPP 9-1 requires compliance with the City's Housing Ordinance, which mandates a set-aside of 15 percent of the total units for very low, low, and moderate income households. : "Affordable housing plans for an entire planning area(s) shall be submitted in conjunction with the first residential map. (Irvine Zoning Code section 2-3-3(A)(1.).)" In addition, the project amends the original project that included an approved and granted density bonus pursuant to state law. State law mandates that a project using density bonus shall provide affordable units in the project at prescribed income limits that are in compliance with Health and Safety Code and state Housing Element law (State Government Code Section 65915(b)(1).)

   Thus, the applicant must provide 15 percent affordable housing in accordance with the Housing Ordinance. Therefore, there are sufficient assurances that the applicant will provide affordable housing in accordance with the Housing Ordinance.

   The commentator also questions whether the City has adequate regulations with respect to Regional Housing Needs Assessment (RHNA) targets. The 2013-2021 Housing Element of the City's General Plan provides a long-term blueprint for housing in the context of local and regional trends and housing production goals.

It addresses new production RHNA targets set by the California Department of Housing and Community Development (HCD) and allocated by the southern California Association of Governments to encourage each jurisdiction in the state to provide its fair share of very low, low, moderate, and upper income housing needed during the current term of the Housing Element 2013-2021.

State law requires that cities demonstrate they have adequate sites to meet their RHNA allocations. An analysis of land resources must be completed that takes into consideration zoning, development standards, and the availability of public services and facilities to accommodate a variety of housing types and incomes. The City must demonstrate that it has capacity or adequate sites to accommodate projected need for housing. The evaluation of adequate sites represents planning goals, and not a mandate for actual production of housing within a planning period.

This required analysis is included in the City of Irvine 2013-2021 Housing Element, which has been adopted by the City of Irvine. The City met HCD's criteria for addressing the City's RHNA target and HCD found the City's 2013-2021 Housing Element to be in compliance with State law.

The prior 2008-2014 as well as the current 2013-2021 Housing Element include sites within the Proposed Project Site to meet its RHNA target for lower income housing sites. Any of these sites could be developed for affordable housing.

In addition to providing adequate sites for affordable housing, the City has a clearly demonstrated record of success in providing assistance, incentives, and programs to encourage and assist in the development of housing for lower and moderate income households. As noted, in March 2003, the City Council approved amendments to the City's Affordable Housing Implementation Procedures outlined in Chapter 2.3 of the Zoning Ordinance that made it mandatory that 15 percent of new housing development in the City be affordable.

Overall, the City has a positive track record of compliance with State law related to affordable housing, as evidenced by HCD's approval of the City's Housing Element, and as evidenced by the City's effective production of affordable housing through market mechanisms throughout the City.

Finally, the commentator states (the letter is dated July, 2012) that the City should comply with the forthcoming RHNA (later adopted in October 2012) as part of the 2012 Modified Project. The Southern California Association of Governments ("SCAG") was in the process of preparing the RHNA for 2013-2021when the NOP was released and when the Draft SSEIR was circulated. CEQA requires that agencies evaluate existing plans and policies at the time of the release of the NOP, and SCAG adopted the new RHNA after October 4, 2012. This acknowledged, the City 2008-2014 Housing Element was certified by the state of California and adopted by the City of Irvine. It was deemed compliant by the state with Housing Element law and the 2008-2014 addressed the RHNA through its site inventory analysis. The new RHNA for the 2013-

2021 Housing Element allocated 12,169 units to Irvine and that number is approximately 2/3 less than the City's allocation it accommodated in the 2008-2014 Housing Element. The City updated its Housing Element with these new RHNA numbers (12.69) on September 10, 2013 under current state law. Even so, the existing Housing Element more than accommodates this new, lower allocation. Since the City had already demonstrated that it has sufficient vacant land to meet a higher RHNA allocation in its 2008-1014 Housing Element, it also demonstrated in the 2013-2021 Housing Element update that it accommodated this new, lower, allocation.

b. The commentator asks for additional information regarding housing affordability as related to trip capture. The Proposed Project Site, which is located within the 92618 zip code, is home to some of the City's major employment centers, including the Irvine Spectrum. Therefore, affordable housing units located within the 92618 zip code are in close proximity to these employment centers. According to SCAG, the average commute length in southern California is 19.2 miles. As a result, by siting a portion of the City's affordable housing projects in close-proximity to transit and employment centers, the number of commute trips and commute trip lengths can be significantly reduced thereby reducing associated traffic, air quality, greenhouse gas emissions, and noise impacts.

   In addition, there is no prohibition on the development of Affordable Housing within the Proposed Project Site. In fact, due to the Project requesting a density bonus, there is a mandatory requirement under both local ordinance and state law to develop affordable housing as a component of the project. Thus, the proposed project is entirely consistent with the Statewide prerogatives (such as SB 375) with respect to the reduction of vehicle miles traveled and vehicle trip lengths.

   Several of the City's affordable housing projects are located within five miles of the City's employment centers including, as examples, the Irvine Business Complex, the University of California Irvine, and the Irvine Spectrum. There are also affordable housing projects located near the Proposed Project Site. In addition, the 2012 Modified Project provides a wide-range of housing opportunities at varying densities in an effort to provide housing for all income levels, including very-low, low, moderate, and above-moderate households. For the reasons stated herein, the 2012 Modified Project provides an appropriate balance of jobs and housing at all income levels consistent with regional and State goals.

A15-15 The commentator asserts that sufficient parkland will not be provided for the amount of increased residents. The commentator is referred to Response A15-16, below. The commentator also asserts that the "Great Park area population will actually be much larger than assumed in the Recreation section analysis," but provides no basis for this statement.

A15-16 The commentator incorrectly asserts that the Great Park will be needed to serve the needs of future residents. Sub-section 5.11.5 of the DSSEIR concludes that additional parkland will be needed as the population of Irvine grows. But, the DSSEIR does not

conclude, nor is it the City's policy, that additional park demand would be met by the Great Park. Instead, the City will require new development to provide neighborhood and community parks in accordance with Irvine Municipal Code section 5-5-1004, which requires specified dedications (or payment of a fee in-lieu of a dedication) at the time of subdivision. Irvine Municipal Code section 5-5-1001 requires that the dedication occur as a condition of a tentative map. Therefore, as future development occurs outside of the Proposed Project Site, the City will require future park dedication which will mitigate any future impacts.

The City's existing regulations already require phasing of parks, as discussed in Response A16-38B.

A15-17 The commentator asserts that the SSEIR should include analysis regarding public services, parking, and recreational facilities in Laguna Beach. The SSEIR need not include such analysis as discussed in Response A15-22, below.

A15-18 The commentator states that the "DSSEIR must analyze the current population that will be served by the Great Park…" To the extent that the commentator raises concerns about the ability of the Great Park to serve future residents, the commentator is referred to Response A15-16. With respect to the proper baseline for the project, the commentator is referred to Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR.

A15-19 The commentator asks about the basis for the population generation factor for the "Estimated Persons per Household." These numbers are based on General Plan Table A-3 and based on the U.S. Census data. Per the commentator's request, a reference will be added to Tables 5.11-5a and 5.11-5b (see Chapter 4.0 of this FSSEIR).

A15-20 The commentator claims that the 2012 Modified Project should not be analyzed using the City's typical park standards because the entire project "would be high density multi-story apartment or condominiums." The ARDA governs the amount of parkland that must be dedicated for the 2012 Modified Project. Even if that were not the case, the commentator's assumption is inaccurate; the average density of the 4,894 dwelling units that have already been approved is approximately 10 dwelling units per acre. None of these units are anticipated to exceed three stories. In fact, the majority will be single family attached and detached units.

A15-21 The commentator claims that the 2012 Modified Project eliminates recreational facilities from the Project Site. To the contrary; the acreage of the Great Park is the same as in the 2011 Approved Project. As noted in Chapter 3, Project Description (page 3-1), the Proposed Project Site does not include the majority of the Great Park, it only includes a "portion of the Great Park known as the 'Sports Park District'." This is because the 2012 Modified Project is not proposing any changes to the recreation facilities in the Great Park or the amount of land dedicated to regional park uses. The only aspect of the 2012 Modified Project that relates to the Great Park is the provision of funding for the already approved facilities within the Sports Park District. Moreover, unlike non-residential development, residential development

must dedicate parkland at the time of subdivision. Thus, since the 2012 Modified Project contains more residential units than the 2011 Approved Project, the 2012 Modified Project will result in more parks and recreational facilities, not less. With respect to a golf course, the 8.1 zoning permits golf courses as a conditional use (Irvine Zoning Code section 3-37-37(D)(23).

A15-22 The commentator asserts that the 2012 Modified Project will have significant impacts to recreational areas outside Irvine, particularly in Laguna Beach, and that it will "significantly increase demands on limited parking, police and fire services, and marine safety services." As discussed below and in Response A17-35, the 2012 Modified Project will not result in significant impacts to open space.

With respect to the SSEIR's analysis of police, fire and marine services, CEQA requires analysis of social or economic impacts only insofar as they are related to physical impacts, Section 15382 of the CEQA.; An economic or social change by itself shall not be considered a significant effect on the environment. There is no evidence to suggest that the 2012 Modified Project would create physical impacts to Laguna Beach services. The case of *City of Hayward v. Bd. of Trustees of California State Univ.* (2012) 207 Cal. App. 4th 446, 455-56 is also instructive here.

> "We also reject the trial court's conclusion that CEQA requires the Trustees to provide mitigation to address the need for additional fire protection services. Respondents argue that the population increase will cause dangerously long response times and that the Trustees are required to fund the construction and staffing of an additional fire station to mitigate this significant impact. … the obligation to provide adequate fire and emergency medical services is the responsibility of the city. (Cal. Const., art. XIII, § 35, subd. (a)(2) ["The protection of the public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services."].) The need for additional fire protection services is not an *environmental* impact that CEQA requires a project proponent to mitigate…."

A15-23 The commentator provides no data on physical impacts from recreational visitor use to open space areas that establishes a nexus to the 2012 Modified Project, nor does the comment identify a means by which mitigation for such impacts, if any, of the Project could be quantified. The City of Irvine is unaware of any data that reliably attributes significant impacts in Laguna Beach to visitors from specific geographic regions, let alone from specific residential neighborhoods outside Laguna Beach. Accordingly any assertion that the project's proposed increase in future residents might result in significant adverse effects on extra-jurisdictional open space (either directly or indirectly and either coastal or terrestrial) has no support and would be speculative. The FSSEIR need only assess impacts for which substantial evidence exists. See Response A15-22 above.

A15-24 The commentator is referred to Response A15-22 with respect to potential impacts on recreational facilities outside of Irvine. The commentator also raises issues related to

in-lieu park fees and dedication requirements and the timing of implementation of parks. As discussed in Response A15-16 above, the City requires dedication of parkland as a condition of the tentative map approval. In accordance with the ARDA and the City's regulations, the applicant is already providing 38.29 acres of neighborhood parks and private amenities (exceeding the 35.97 acres that are required) as part of the VTTMs that were approved as part of the 2011 Approved Project and the ARDA. The applicant is also already providing 14.48 acres of trails. Moreover, pursuant to the Park Plans that were approved as part of the 2011 Approved Project, the applicant is funding the construction of these parks, which is not required. Neighborhood parks will similarly be provided for when the applicant applies for VTTMs for the units in the 2012 Modified Project.

The commentator's reference to *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 117 refers to a different issue. In that case, the court found mitigation regarding fair share costs to be speculative because it was not part of an enforceable plan, the lead agency did not have a program in place to implement the mitigation, and the mitigation was partially outside of the control of the lead agency. Here, the lead agency **requires** dedication of land and construction of neighborhood parks as part of the tentative map process. In accordance with the City's established regulations, the neighborhood parks for the 2012 Modified Project will be required in the same manner as the neighborhood parks for the 2011 Approved Project.

With respect to community parks, 169 acres of improvements have already been constructed in the Great Park which include: 42.1 acres of sports fields, the Great Park Balloon, the Great Park Carousel, a Visitor's Center, the Palm Court (Great Park Gallery and Great Park Artists Studios), Farm and Food Lab, Hangar 244, Farmer's Market and Kid's Rock. Moreover, the 2012 Modified Project provides funding for the implementation of facilities within the Sports Park District. Moreover, it is not disputed that the Great Park (which the applicant dedicated and has partially funded) will be a substantial contribution to the recreational and parks amenities in the region, including Laguna Beach.

A15-25 See Response A15-22 above.

A15-26 See Response A15-3, above.

A15-27 The commentator questions the Traffic Impact Analysis' assumptions regarding the roadway networks analyzed for each future year scenario. Chapter 4 of the Traffic Impact Analysis (see Appendix D of this FSSEIR) provides a comprehensive description of interim year (2015) network features (Exhibit 4-6) and long range future (2030 and Post 2030) network features (Exhibits 4-7 and 4-8), including the nature and extent of each improvement, the implementation timeframe (2015, 2030/constrained or Post 2030/MPAH), and the funding source responsible (See Tables 4-5 to 4-10). Tables 4-5 to 4-10 provide all of the lane configuration information needed to evaluate peak hour service levels on all study area links and intersections for interim year (2015) and long range future (2030/constrained and Post 2030/MPAH) networks. The Traffic Impact Analysis is comprehensive in its identification of roadway network assumptions consistent with City requirements.

A15-28 The commentator questions the geographic scope of the DSSEIR traffic study area, specifically why it was not extended further south in the SR 133 corridor to analyze intersections within the City of Laguna Beach. The commentator provides no analysis or traffic data to support such an extension of the study area. The SSEIR provides substantial evidence that such additional traffic analysis for an expanded study area is not necessary based on the minimal project traffic (1%) being distributed south along Laguna Canyon Road. The Traffic Impact Analysis utilizes the Irvine Transportation Analysis Model, version 8.4-10 (ITAM 8.4-10), which incorporates numerous other jurisdictions including Laguna Beach in its model area. Within the City of Irvine, a comprehensive database of existing and planned land uses and population and housing statistics for each ITAM zone is maintained. Outside of the City of Irvine, ITAM derives area wide traffic patterns from its parent model, the Orange County Transportation Analysis Model (OCTAM) which is used to produce trip tables that drive ITAM. The DSSEIR traffic impact analysis therefore takes into account all extra-jurisdictional development in the County growth projections.

The Traffic Impact Analysis utilizes this data to determine the boundaries of the study area for traffic purposes. The southerly boundary for the Traffic Impact Analysis is north of El Toro Road on SR-133 (Laguna Canyon Road), because the 2012 Modified Project does not create significant net volume increases beyond that point. The analysis results confirm the study area boundary. There are less than significant increases to the south, therefore the study area does not warrant expansion.

The impacts of the 2012 Modified Project on traffic dissipate the farther the analysis goes from the development. Project traffic on SR-133/Laguna Canyon Road continues to diminish as the trips spread out across the roadway network. Therefore, it is highly unlikely that project related traffic and impacts would be less than significant at one intersection, then somehow increase (or be more significant) at a farther distance from the project. The commentator has provided no evidence to indicate that a significant impact would occur south of this location. Accordingly, further traffic analysis in Laguna Beach would not reveal additional significant impacts due to project-related or cumulative impacts from the 2012 Modified Project for purposes of CEQA.

The commentator, - without support, suggests that increased residential development in Irvine must mean that there will be greater numbers of people who will drive to Laguna Beach's attractions, increasing traffic congestion for which, presumably, mitigation must be required. As shown in Table 11 in Appendix E of this FSSEIR), ITAM traffic projections for "with project" and "without project" conditions indicate that more homes in place of non-residential uses would translate into a maximum increase of 100 trips per day which does not represent a significant volume increase on SR-133 in the vicinity of El Toro Road.

Moreover, increased residential development in Irvine has not become linked to greater traffic in Laguna Beach. A variety of attached and detached residences have been built and occupied in Quail Hill, Woodbury, Cypress Village, the Spectrum

area, and Laguna Altura during the past 10 years (2002 to 2011). Most of these projects are located even closer to Laguna Beach than the 2012 Modified Project. Yet, volumes have decreased on SR-133 south of SR-73 (i.e. traffic going to Laguna Beach) based upon average and peak month Caltrans volumes, as indicated in the attached Table 6 (see Appendix E of this FSSEIR). Furthermore, as shown on Tables 5.9-1 and 5.9-2 of the DSSEIR, housing units grew by 8.2% and 56.2 percent within the County and the City, respectively, between 2000 and 2010, yet volumes on Laguna Canyon Road decreased. This conclusion is consistent with trip distribution patterns for nearby projects evaluated in the following traffic studies:

a. "Planning Area 33 (Lots 105 and 107/108) General Plan Amendment and Zone Change Traffic Study", Stantec, March 2012.

b. "City of Irvine Planning Area 6 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., November 2011.

c. "City of Irvine Planning Area 40 Vesting Tentative Tract Map 17277 Traffic Study," Austin-Foust Associates, Inc., October 2010.

d. "City of Irvine Planning Area 40/Planning Area 12 (Traveland Site) GPA/ZC and Planning Areas 1 and 9 Density Transfer Traffic Study," Austin-Foust Associates, Inc., June 2008.

e. "City of Irvine Planning Areas 18, 33 (Lot 109), 34 and 39 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., February 2006.

f. "City of Irvine Planning Areas 1 and 9 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., February 2005.

g. "City of Irvine Planning Area 17 Tentative Tract Map Traffic Study", Austin Foust Associates, Inc., May 2001.

h. "Planning Area 17 Traffic Study", Austin-Foust Associates, Inc., July 2000.

The unique trip distribution pattern for each residential development evaluated in these studies indicates that no significant project traffic impacts occur on SR-133 south of SR-73.

There are any number of reasons why increased development elsewhere does not necessarily translate into increased Laguna Beach congestion, including infrastructure improvements, competition from other attractions, traffic diversion patterns, changing demographics, different urban planning initiatives and greater environmental awareness. That aside, the commentator's attempt to link the Project (and other Irvine developments) to increased traffic congestion in Laguna Beach is not consistent with the traffic data. Project traffic becomes less than significant at the intersection of El Toro Road and SR-73. This is in large part due to the fact that there is very limited access to Laguna Beach because SR-133 south of SR-73 has

restricted capacity, and drivers respond to the limited capacity by choosing other destinations. The reality of drivers selecting alternative destinations (when possible) in response to congestion is generally simulated successfully in ITAM. Vehicle trips being added by new development always interact to some degree with existing land uses in ways that displace prior travel patterns, but the net result is not always an increase in volumes throughout the entire roadway network. See Appendix E for additional discussion of this topic.

A15-29 See Response A15-28 above.

A15-30

a. The commentator asserts that the traffic analysis is flawed because the wrong baseline is used. As discussed in Topical Response 2, Baseline, in Chapter 2.0 of this FSSEIR, the SSEIR uses the proper baseline. Refer to Response A8-26 related to Sports Park discussion.

b. The commentator states that the "DSSEIR also does not address the likely development pattern that will arise through multiple future transfers of development intensity." It is not clear what "multiple future transfers of development intensity" the commentator is referring to, but to the extent that the commenting relates to the optional conversion of up to 535,000 square feet of non-residential development to residential units, the commentator is referred to Response A10-4. As discussed therein, the SSEIR analyzes the optional conversion in all areas except in the traffic analysis. PDF 12-1 and Section 9-51-6(T) of the Draft Zoning specify that future traffic analysis will occur for the optional conversion, if necessary, when the location, number and type of the residential units is determined.

A15-31 A15-31 The commentator asks for information regarding the time of year when traffic counts were conducted. Traffic counts are collected when typical activities occur, i.e. when schools are in session, non-holidays, etc. since these typically generate the greatest traffic volumes. It is City policy to size its roads and infrastructure based on the likely scenario for a typical day (i.e. for average daily traffic (ADT) and typical AM and PM peak hour traffic), not atypical periods, such as holidays or summer seasons when schools are not in-session.

As stated above, volumes have decreased on SR-133 south of SR-73 (i.e. traffic going to Laguna Beach) based upon average and peak month Caltrans volumes, as indicated in the attached Table 6 (see Appendix E of this FSSEIR). Furthermore, as shown on Tables 5.9-1 and 5.9-2 of the DSSEIR, housing units grew by 8.2% and 56.2 percent within the County and the City, respectively, between 2000 and 2010, yet volumes on Laguna Canyon Road decreased.

Appendices 4.1 and 4.2 of the DSSEIR traffic impact analysis contain the peak hour intersection turning movement count worksheets and arterial roadway segment daily 24-hour traffic count worksheets, respectively, and demonstrate that most of the peak hour intersection counts were conducted between January and early June 2012. The

SR-133/SR-73 peak hour intersection counts were conducted in April 2012. The SR-133/Old Laguna peak hour intersection count was conducted during May 2012.

Weekend traffic can reflect much higher recreational trips, such as to beaches and restaurants, but in turn has far lower commuter volumes. The City of Irvine and its consultants have consistently recognized the pervasive seasonal traffic issues on SR-133, and OCTA Go Local Program initiatives are indeed examples of area wide initiatives to address these concerns. As requested by the City of Laguna Beach traffic consultant, the "City of Laguna Beach Final Report for OCTA Go Local Program Step One" (City of Laguna Beach and Dan Boyle & Associates, 2008) and "OCTA Go Local Project V Step 2 Service Planning, Subregion 4: Irvine Metrolink Station" (City of Laguna Beach & HDR Engineering, Inc., February, 2011) are acknowledged.

However, the comment suggests that weekend traffic volumes may generate greater traffic congestion than weekday trips and should be evaluated separately. As explained in response A15-28 access to Laguna Beach is limited due to existing roadway capacity, and, as a result, drivers select alternative destinations and/or routes when possible. Peak month, weekend and weekday traffic volumes seeking to access Laguna Beach are constrained by limited capacity on SR-133 south of El Toro Road.

Weekend summer traffic operations on SR-133 are further impacted by parallel parking activity along this route (ingress and egress from permitted on-street parking on segments of Laguna Canyon Road). Also, weekend demand can be spread over a greater time period than peak hour periods for commuter traffic, e.g., people may choose to go to the beach at 10 AM, but typically do not have the option to go to work at that hour, thus commuter traffic is more concentrated in peak hour periods.

Based on the data, it can be assumed that weekend traffic in Laguna Beach can be expected to be the same or less than peak hour weekday traffic volumes, which are used in the traffic analysis to estimate demand in that area. This finding is supported by a comparison of weekend and weekday peak hour traffic data for Laguna Canyon Road at Forest Avenue (downtown Laguna Beach) which is presented on Figures IV.J-2 and IV.J-3 of the City of Laguna Beach Village Entrance Project DEIR, based upon a February 2010 Kimley-Horn and Associates technical report.

Figures for this intersection can be summarized as follows:

Laguna Canyon Road (SR-133) / Forest Avenue

Laguna Canyon	**Weekday (VPH)**	**Weekend (VPH)**
NB (peak hour)	1276	1116
SB (peak hour)	1433	1358

Thus weekend peak hour traffic flows are slightly lower than weekday p.m. peak hour flows and therefore the traffic analysis numbers reasonably represent traffic in the area.

Laguna Beach has long been recognized as a major tourist attraction with a regional draw, and weekend traffic congestion on Laguna Canyon Road is evident. Seasonal traffic congestion occurs on Laguna Canyon Road as residents of Orange County, Los Angeles County and the Inland Empire visit the resorts, restaurants, art exhibits, festivals and beaches in the City of Laguna Beach. However, because the 2012 Modified Project does not create significant net volume increases north of El Toro Road at Laguna Canyon Road on typical weekdays and during peak hour periods, and weekend traffic on the southerly portion of Laguna Canyon Road within the City of Laguna Beach is typically less than weekday traffic, there is substantial evidence that the 2012 Modified Project will not result in adverse weekend traffic impacts to Laguna Beach.

Traffic congestion in Laguna Beach during seasonal periods is a function of many factors throughout Southern California and in particular inherent local constraints on traffic access. This problem must be addressed on a regional level, and indeed, there are efforts to do so. It is not reasonable or feasible for a single project within this area to address or mitigate these concerns, and in any event, the traffic data does not indicate that the project would cause a significant increase in traffic whereby causing any deficiencies or significant impacts.

A15-32 See Response A15-31 and Appendix E of this FSSEIR. Deficiencies exist and will continue to exist at Laguna Canyon/SR-73 NB ramp, but the 2012 Modified Project contribution of traffic does not meet the significance threshold for identification of project impact, as results of Table 10 of Appendix E indicate. Also as discussed in more detail in Section 5.9, *Population and Housing*, the 2012 Modified Project benefits the jobs-rich community of Irvine by converting employment uses into residential uses. The improved balance of jobs and housing in the 2012 Modified Project does not compound the traffic problems evident during peak seasons on SR-133 in the vicinity of El Toro Road. Both average daily and peak month volumes have actually **decreased** on SR-133 in the vicinity of El Toro Road during the past 15 years (1997 to 2011), even as the City of Irvine has matured as a place to live and work and despite the fact that Irvine's population grew by 48.4 percent from 2000 to 2010. (DSSEIR at p. 5.9-2.) See attached Table 6 and Table 8 in Appendix E of this FSSEIR.

A15-33 The commentator suggests that the performance standards/thresholds of significance are not adequately explained in the Traffic Impact Analysis. The Traffic Analysis Performance Criteria used in the traffic analysis are fully explained in Table 2-4 in the Traffic Impact Analysis (see Appendix D of this FSSEIR). The DSSEIR used the adopted thresholds of significance of the City of Irvine, which as lead agency has authority to determine its preferred analysis methodologies and thresholds of significance. The City's weekday traffic analysis performance criteria/ impact thresholds are supported by substantial evidence and are consistent with

comprehensive NITM traffic study requirements, as discussed in the Response A5-2 and Topical Response 3, NITM in Chapter 2.0 of this FSSEIR.

The commentator also criticizes the City's use of LOS "E" as a threshold. The City of Irvine has already adopted an LOS "E" threshold within the Irvine Spectrum, the Irvine Business Complex and several locations within the NITM Program area in the vicinity of the Great Park. In addition, the General Plan allows for the consideration of a LOS "E" threshold in Planning Area 30. As lead agency, the City of Irvine has the authority to adopt thresholds of significance provided they are supported by substantial evidence. However, it should be noted that the Traffic Impact Analysis does not rely upon the application of LOS "E" acceptability or any other change in LOS standards within Combined Planning Area 51 during the course of evaluating traffic impacts associated with the 2012 Modified Project.

The commentator repeats its assertion that the traffic area boundary should have extended to Laguna Beach. The boundaries of the traffic study are supported by substantial evidence, as discussed in Responses A15-28 and A15-31, above.

A15-34 The commentator requests that an index be provided to the traffic section. A summary of the traffic section is being provided as an introductory portion to the Section 5.12, *Transportation and Traffic*, as shown in Chapter 4.0 of this FSSEIR.

A15-35 See Topical Response 2, Baseline. The commentator states that impacts identified in the Existing Plus Project analysis that may occur must be mitigated to the extent feasible. Two impacts are identified in the Existing Plus Project analysis (for Option 1 and Option 2): at the Culver Drive and University Drive intersection and at the SR-133 Northbound Loop On-ramp at Barranca Parkway.

At the intersection of Culver Drive & University Drive, improvements are already identified in the NITM program and the University of California, Irvine Long Range Development Plan. Traffic projections for all future scenarios with these improvements result in acceptable levels of service.

The SR-133 northbound loop on-ramp at Barranca Parkway is not impacted under future conditions (cumulative 2015, 2030 and Post-2030 scenarios), and the proposed improvement for this ramp (conversion of the HOV preferential lane to a second metered mixed-flow lane) is not a NITM Program improvement. In the event that the pending projects evaluated in the traffic impact analysis are approved, this location is identified as a project impact in 2015 in the 2012 Modified Project Option 2 scenario and the Project would participate in the implementation of the mitigation improvement on a fair share basis. All impacts and mitigations identified in interim year (2015) and build-out conditions (2030/Post-2030) are identified in Table 10-3 of the Traffic Impact Analysis and are further discussed in Topical Response 3, NITM.

A15-36 The commentator questions whether the Traffic Impact Analysis has accounted for cumulative development, and also questions the City's performance standards/thresholds of significance. The commentator also expresses concern about the potential impacts of weekend recreational trips. As discussed in the Responses

A15-12 and A15-29, the Traffic Impact Analysis has taken into account cumulative development. The SSEIR uses the proper traffic thresholds in compliance with CEQA Guidelines, as discussed in Response A5-2. Finally, weekend recreational trips are discussed in Response A15-31, above.

A15-37 See Responses A15-39 through A15-41, below.

A15-38 See Responses A15-28, A15-29, A15-30, A15-31 and A15-32 above.

A15-39 The commentator asserts that the traffic mitigation provided for the 2012 Modified Project's impacts are not sufficiently enforceable because (1) it fails to ensure that the improvements will be provided when needed; (2) it fails to ensure that the land owner or successor will pay its fair share for each improvement; (3) the City has failed to coordinate the required mitigation with each affected jurisdiction to ensure the mitigation is acceptable to each; (4) the City has failed to identify mitigation measures for impacts to freeway mainline and ramp impacts, including measures beyond those that Caltrans "already has programmed might be feasible;" and (5) the City has failed to enter into the fair share agreements with each affected jurisdiction.

As a preliminary matter, the SSEIR has concluded that, with the implementation of these mitigation measures, the 2012 Modified Project's impacts would be less than significant. However, the SSEIR conservatively concludes that if the improvements listed in these mitigation measures are not built for reasons beyond the City's control, the 2012 Modified Project's impacts could be significant and unavoidable. The SSEIR has expressly acknowledged that the impacts addressed by these mitigation measures may be significant and unavoidable specifically because these measures are not enforceable by the City since "the primary responsibility for approving and/or completing these improvements lies with agencies other that the City, that is, with Caltrans, the City of Lake Forest or the City of Tustin." (SSEIR, Section 5.12, p. 5.12-140; see CEQA § 21081(a)(2); CEQA Guidelines § 15091(a)(2).)

In response to the first comment, each mitigation measure is specifically designed to provide the improvements specified in the mitigation measure at the time that it is needed, based on the Traffic Impact Analysis. TRAN5 and TRAN7 each provide a list of intersections that would be impacted in the Interim Year Analysis by the 2012 Modified Project; therefore, each measure requires that, when tract or parcel maps are proposed, the required TTM/TPM traffic study be used, in part, to verify if in fact these same intersections will be impacted earlier than identified in the SSEIR. If any of the intersections are shown to be impacted, TRAN5 and TRAN7 require that the proposed map be conditioned to build the required improvements at the impacted intersections. If any of the intersections are not shown to be impacted in the interim year, then TRAN5 and TRAN7 require that before the last final map (or portion thereof) is approved (because the impact would not occur until the build-out year), the land owner either build the required improvement, or pay its fair share of the cost of the improvement, or enter into a fair share agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by the other affected jurisdictions (Caltrans, City of Lake Forest, City of Tustin). Similarly, TRAN9, TRAN10 and TRAN12 all require that a good faith

attempt be made to enter into a fair share agreement with Caltrans be made prior to the approval of the last final map (or portion thereof), because the impact would not occur until the build-out year.

In response to the commentator's second comment, all five mitigation measures do contain sufficient assurance that the land owner or successor will pay its fair share of the required improvements. If the intersection improvements must be built as a condition of the proposed map, both TRAN5 and TRAN7 provide that, the land owner or successor must itself build the improvements. Otherwise, both TRAN5 and TRAN7 provide that, prior to approval of the last final map (or portion thereof), the land owner or successor shall either build the required improvements, or pay its fair share of the costs of the required improvements, or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by the other affected jurisdictions (Caltrans, City of Lake Forest, City of Tustin) toward implementing the improvements. Similarly, TRAN9, TRAN10 and TRAN12 all require that a good faith attempt be made to enter into a fair share agreement with Caltrans prior to the approval of the last final map (or portion thereof). Again, however, the SSEIR recognizes that the City cannot compel these other jurisdictions to enter into such agreements or complete these improvements in a timely manner or to enter into fair share or other mitigation agreements and, therefore, acknowledges that the impacts that these mitigation measures address may remain significant and unavoidable because the mitigation may be infeasible under such circumstances. (SSEIR, Section 5.12, pages140-141.)

In response to the commentator's third comment, ITAM derives area wide traffic patterns from its parent model, the Orange County Transportation Analysis Model (OCTAM). See Response A15-28. Tables 4-6 and 4-9 of the Traffic Impact Analysis list the roadway and intersection improvements programmed to occur for the 2030 ITAM scenarios. The SR-241 extension is included in the background condition for 2030 because it is a regional network component of OCTAM which is also included in the TCA CIP. Again, the SSEIR acknowledges that while the City has specified appropriate mitigations for each impact which would reduce the level of the impacts to less than significant, the City only has jurisdiction over the land and activities within its boundaries, and cannot dictate to other jurisdictions what measures must be taken within their own boundaries. The other jurisdictions may determine that such mitigation is not necessary or that for other reasons it chooses not to implement such mitigation. For this reason, the SSEIR has acknowledged that these intersection impacts may not be mitigated and may remain significant and unavoidable because the mitigation is infeasible under such circumstances. (SSEIR, Section 5.12, pages 140-141.)

In response to commentator's fourth comment, Mitigation Measures TRAN9, TRAN10 and TRAN12 require that the City and the applicant attempt, in good faith, to reach a fair share agreement with Caltrans for the construction of the identified or alternate improvements, as determined at the time of the agreement, to mitigate project impacts. Those measures also provide that the fair share contribution shall be calculated using the same methodology for determining fair share contributions as is used in the NITM Program. The SSEIR recognizes that the City cannot compel

Caltrans to enter into fair share agreements and, therefore, acknowledges that the impacts that these mitigation measures address may remain significant and unavoidable. (SSEIR, Section 5.12, pages140-141.)

Contrary to the commentator's final comment, it is too early for the City to enter into fair share agreements with the other affected jurisdictions, since it has not yet approved the 2012 Modified Project. The 2012 modified project commits the City and applicant to make a good-faith effort to enter into such agreements and the City and applicant are committed to accomplishing this at the appropriate time

A15-40 The commentator asserts that Mitigation Measures TRAN5, TRAN7, TRAN9, TRAN10 and TRAN12 violate CEQA by failing to describe the improvements required with specificity and to describe the City's plan for mitigating the impacts, to state whether any funds would be available to implement the improvements required and the adequacy of that funding, and to identify the timing of the mitigation and discuss the likelihood that the measures will be implemented in a timely manner. These assertions are unfounded.

First, each of the mitigation measures specifically describes the improvements required. TRAN5, TRAN7, TRAN9, and TRAN10 each describe the required improvements in bullet points; TRAN12 describes the required improvement (conversion of the HOV preferential lane at the SR-133 northbound loop at Barranca Parkway to a second metered mixed-flow lane) in the main paragraph of the measure. These descriptions adequately detail the City's plans for mitigating the impacts.

Second, each measure ***requires*** that the land owner or successor either pay for, construct, enter into a fair share agreement, or pay its fair share of (see, e.g., TRAN5 and TRAN7), or, in the case of TRAN9, TRAN10 and TRAN12, attempt to pay its fair share of the required improvements. Any improvement built by the land owner will by necessity be properly funded. Fair share agreements are commonly used to fund major improvements required as a result of multiple projects, and the City has successfully executed agreements to ensure that such improvements are built or that the necessary obligations for project mitigations have been satisfied. In addition, TRAN9 and TRAN10 describe how the fair share contribution would be calculated.

Third, each measure specifically provides when the improvement must be built, or the fair share payment made or fair share agreement entered into. Each provides that the improvement must be built at the time the traffic analyses have indicated they are needed.

Finally, these transportation conditions have been included and approved in the 2011 Certified EIR and are simply being incorporated in the 2012 Modified Project.

A15-41 The commentator asserts that the costs of the fair share programs called for by the SSEIR's traffic mitigation measures for the 2012 Modified Project must be developed now because, as written, these programs violate CEQA by failing to include in their descriptions whether sufficient funds will be collected to build the improvements, and to address whether the improvements will be completed by the

time they are needed. In addition, the commentator asserts that TRAN5 improperly defers mitigation by requiring the preparation of a study rather than actual mitigation of the impact. The commentator mischaracterizes the mitigation measures.

As discussed in Response A15-40, above, each of the mitigation measures specifically require that the land owner or successor either (1) build the required improvements or pay its fair share of the costs of the required improvements (see TRAN5 and TRAN7), or enter into an agreement with the City and other affected jurisdiction[s] to fund the construction of the agreement (see id.; see also TRAN9, TRAN10 and TRAN12). In the case of TRAN9, TRAN10 and TRAN12, however, the SSEIR states there is a possibility that no fair share agreement can be reached with Caltrans. Moreover, with respect to TRAN5, TRAN7, TRAN9, TRAN10 and TRAN12, the SSEIR acknowledges that for reasons beyond the City's control, the required mitigation may not be implemented, or implemented completely and that, therefore, the impacts may be significant and unavoidable.

The mitigation measures, in particular TRAN5, do not improperly defer mitigation of traffic impacts. Gray v. County of Madera (2008) 167 Cal. App. 4th 1099, 1118, the case cited by the commentator, identifies the standard for deferral of mitigation: "Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. [Citation.]" Unlike the mitigation measure in Gray, where the EIR simply required a fair share contribution, TRAN5 requires analysis of the impact and has a performance standard by which the impacts are judged and a mechanism for implementation. TRAN 5 states, in part:

> "[T]he required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study…"

Future traffic study requirements are intended to identify whether improvements identified in the FSSEIR need to be accelerated with the associated application. Resolution No. 03-61 includes the NITM Scopes of Work for traffic studies, which set forth in great detail how a tract map level traffic study for a property participating in the NITM program must be prepared, including performance standards, which are the same as those used for the Traffic Impact Analysis and included in Table 2-4 of that document. Moreover, TRAN5 ensures that the mitigation will be implemented because it will be imposed as a condition of approval to the tract map.

A15-42 The commentator asserts that the DSSEIR fails to analyze "impacts caused by the right-of-way acquisition", but does not specify the mitigation measure to which this statement relates. All identified mitigation measures have been determined to be

feasible and are subject to subsequent CEQA analysis at the time of implementation of each specific mitigation measure improvement. To the extent that the commentator is referring to analysis of the mitigation measure at Jeffrey/Roosevelt, the commentator is referred to Response A8-31a.

A15-43 The commentator makes a general comment that a Statement of Overriding Considerations must be supported by facts. This comment is noted, and no further response is necessary. The commentator also states that "[a]ll feasible mitigation measures must be adopted and enforced…" The traffic mitigation measures identify feasible mitigation, however, since some of the mitigation is within the control of other jurisdictions, the mechanism to implement such mitigation is not feasible.

A15-44 The commentator asserts that impacts to biological resources have not been analyzed or mitigated. As a preliminary matter, the 2011 Certified EIR already concluded that there are no potentially significant impacts with respect to Biology for the Proposed Project Site, a conclusion that does not change here. The commentator is also referred to Chapter 8 of the DSSEIR and Topical Response 4, Wildlife Corridor in Chapter 2.0 of this FSSEIR.

A15-45

a. See Response A16-55(b) and (c).

b. The commentator repeats its objection to the analysis of the conversion of non-residential development to residential development, and claims that the impacts have not been analyzed. As discussed Response A15-10(c) above, an overall zoning code trip budget has been adopted for Planning Areas 30 and 51. As a result, the conversion of non-residential entitlement to residential units is not based on a direct conversion factor, but rather, was determined by maintaining consistency with adopted trip budget. Please refer to Table 5.12-4 in the DSSEIR for ITAM Trip Generation Comparison between Without Project (2015) or 2011 Approved Project (Baseline, 2030 & Post-2030) and the 2012 Modified Project. As noted in Table 5.12-4, the 2012 Modified Project does increase total vehicle trips by approximately 9,784 trips per day. This is related to the density bonus units pursuant to SB 1818, and not subject to the trip budget. The SSEIR analyzes the optional conversion in all areas except in the traffic analysis. PDF 12-1 and Section 9-51-6(T) of the Draft Zoning specify that future traffic analysis will occur for the optional conversion, if necessary, when the location, number and type of the residential units is determined.

c. The commentator repeats its assertion that the SSEIR underestimates potential significant impacts related to population increase and that additional alternatives must be analyzed. The commentator criticizes the use of a population generation factor of "2.49 residents per unit". The DSSEIR does not actually use that population generation factor, and the commentator incorrectly derives it based on 10,700 dwelling units, even though the 2012 Modified Project would add up to 5,806 dwelling units. Further, as discussed on page 5.9-10, the DSSEIR uses population generation rates of 2.94 persons per household for single family units

and 2.29 persons per household for multi-family units (with an average of 2.6 persons per household). This number is actually conservative for Irvine; according to the 2010 Census data, in 2010 there were 212,375 persons and 83,899 housing units in Irvine. Using these numbers, the estimated number of people per household is 2.53. Because no additional significant impacts would occur as a result of the 2012 Modified Project, no additional analysis of alternatives is required.

d. The commentator is referred to Response A15-25, above.

A15-46

a. The commentator claims that the DSSEIR fails to "acknowledge the increased traffic that will be caused by the Project" and that the "analysis simply substitutes trips that would occur under planned nonresidential development for the trips associated with increased residential development." The Traffic Impact Analysis, as discussed in Chapter 5.12, Traffic and Transportation, contains a full analysis of the traffic generated by the 2012 Modified Project, including any cumulative impacts, and contains mitigation measures to mitigate impacts.

To enable more efficient comparisons between earlier studies and the current analysis, directional peak hour trip generation data using consistent ITAM rates are presented in the attached Tables 1 to 3 (see Appendix E) for the 2003 OCGP Project, 2011 Approved Project, and 2012 Modified Project.

The 2012 Modified Project consists of "Heritage Fields" (applicant) and "Other Public Uses" categories shown in Tables 3-1 through 3-7 of the Traffic Impact Analysis (see Appendix D of this FSSEIR). The increase in project trip generation between the 2003 OCGP EIR and the 2012 Modified Project is attributed to the Heritage Fields density bonus units granted pursuant to State Law, including associated trips (i.e. neighborhood parks which generally generate local trips internal to the area, and additional public school capacity). The schools and the neighborhood parks are primarily being constructed to meet the demand of the Project residents and will primarily generate local trips.

Although the 2012 Modified Project results in increases to total peak hour trip ends, the modification to the land uses within the Proposed Project, specifically the reduction of non-residential uses and the increase to residential uses actually minimizes potential impacts resulting from increased peak hour trip ends. This is a result of the changes in land use, which translate into changes in peak hour directionality such that the opportunity for internal trips to occur is more likely. The 2011 Approved Project had a jobs-housing ratio of 16,510/4,894, or 3.37, well above the ideal jobs-housing ratio in the range of 1.3 to 1. Indeed, the entire City has a jobs housing ratio of 2.48, which is also well above the industry standard for an ideal jobs housing ratio (see Table 5.9.6 of the DSSEIR). In contrast, the 2012 Modified Project has a jobs-housing ratio of 17,572/9,500 (or 1.85) without the optional conversion and 15,968/10,700 (or 1.49) with the optional conversion. Thus, the additional housing proposed by the 2012

Modified Project helps the Proposed Project and City to achieve a better jobs-housing balance. By comparison the existing imbalance of non-residential uses would attract commuters and visitors who live in other areas. While this is not the proper baseline (see Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR), these positive changes in the directionality of peak hour trips are shown in the attached Table 4 (see Appendix E of this FSSEIR). The 2003 OCGP EIR project had 79.4% more trips inbound than outbound during the AM peak hour, resulting in more commuters and visitors traveling from outside the area and into the Combined PA 51 with less opportunity for a better balance between inbound and outbound trips. A similar but less severe imbalance occurs during the PM peak hour with the 2003 OCGP EIR project, by way of 30.3% more trips inbound than outbound. The 2012 Modified Project improves the balance by adjusting the mix of land uses on-site, resulting in a balance of directionality between inbound and outbound activity during both the AM and PM peak hours. The result is a combination of traffic volume decreases and increases on surrounding roadways, which are evaluated based upon a comprehensive travel demand modeling process and traffic analysis covering a broad study area.

Although Tables 3-1 through 3-7 of the Draft SSEIR Traffic Impact Analysis include trip generation data for both the "Heritage Fields" and "Other Public Uses" categories of land uses, Table 3-8 focused only on the "Heritage Fields" category. Table 3-8 of the Final SSEIR Traffic Impact Analysis (see Appendix D of this FSSEIR) has been revised to include a summary of both the "Heritage Fields" and "Other Public Uses" categories.

b. The commentator claims that the "Project will have unique traffic and recreational impacts that differ from those impacts that would be caused by residential development at buildout." This comment is unclear. Traffic impacts have been fully analyzed, as discussed in Response A15-46a. To the extent that the comment refers to demand for recreational facilities, that issue is discussed in Response A17-35. To the extent that the comments refer to recreational impacts to the Great Park, that issue is not within the scope of the 2012 Modified Project.

A15-47 The commentator makes a general assertion that growth inducing impacts have not been addressed. Without more detail as to how the existing analysis is objectionable, no response is required.

The commentator also repeats its assertion that the project has been reviewed by "Irvine in a piecemeal fashion." As discussed in Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR, the SSEIR has not improperly piecemealed the project.

The commentator also claims that the SSEIR lacks evidence regarding the balance of uses at buildout and the reduction in VMT. The 8.1 zoning allows a specific mix of residential and non-residential uses at the Proposed Project Site, which, as discussed in more detail in Section 5.9, Population and Housing, has an improved job-housing balance. The commentator's contention that these land uses will not be built or that the jobs-housing balance would cause adverse impacts, is speculative. No such

changes are being proposed at this time. The reduction in VMT is supported by substantial evidence, as discussed in Response A15-46a.

The commentator also repeats its assertions that the SSEIR improperly piecemealed the project and that future General Plan amendments are "foreseeable." As discussed in Topical Response 2, Baseline (see Chapter 2.0 of this FSSEIR), the SSEIR has not improperly piecemealed the project, and all impacts of the 2012 Modified Project have been fully analyzed. As discussed in more detail in Response A15-12, the SSEIR analyzes all foreseeable projects and analysis of any other General Plan amendments is not foreseeable.

A15-48 The commentator makes a summary statement regarding all of its comments, including the need for recirculation and analysis of extra-jurisdictional impacts. Each of these assertions is responded to above.

A15-49 The commentator makes a summary statement about his qualifications, and refers readers to his resume, which is attached as Exhibit 1. No response is necessary to the comment or to Exhibit 1.

A15-50 As discussed in detail in Responses A15-28 and A15-31 above and Responses A15-53, A15-54 and A15-55 below, there is substantial evidence to support the conclusions that the additional residential units will not substantially increase traffic volumes on SR-133 south of SR 73, especially given the volumes on the southern edge of the boundary of the traffic analysis.

A15-51 The commentator notes that the City and its consultants should have known of Laguna Beach's concerns regarding weekend recreational traffic problems on SR-133 because: i) the weekend traffic has been the subject of two studies by OCTA; ii) residential uses generate more weekend trips than non-residential uses; iii) additional traffic is more likely to impact a two lane highway than a four lane highway; iv) the existing LOS at SR 133 and SR 73; v) Caltrans traffic counts for a segment of SR 133 at El Toro Road suggest a v/c that exceeds the City's criteria; and vi) a "competent professional observer" states that there is congestion on El Toro Road. As discussed in the Response A15-28, ITAM already includes Laguna Beach in its model area, and the City already recognizes the pervasive seasonal traffic issues on SR-133 and the limited roadway capacity at the SR 133/SR 73 convergence, which influences recreational destination decisions. However, as discussed Response A15-31, ITAM traffic projections for "with project" and "without project" conditions do not indicate that more homes in place of non-residential uses translate into significant volume increases on SR-133 in the vicinity of El Toro Road. This is supported by additional analysis described in the Responses A15-31, A15-32, and A15-46a, and is consistent with the actual trend in traffic counts along SR-133 in the vicinity of El Toro Road (see Responses A15-50 and A15-51, as well as the attached Tables 6 through 14 in Appendix E of this FSSEIR). Therefore, the SSEIR contains substantial evidence regarding its conclusions.

A15-52 The commentator repeats its assertion that the 2012 Modified Project has the potential to significantly impact traffic in Laguna Beach because it includes more

homes in place of non-residential uses on the project site. The 2012 Modified Project will not adversely impact traffic in Laguna Beach based on the land use mix, as discussed in Response A15-46a. This is supported by additional analysis described in the Responses A15-31, A15-32, and A15-50. The commentator also states, "Considered as the whole of the Project, it potentially adds a total of 10,700 units." As discussed in Topical Response 1, Project Description in Chapter 2.0 of this FSSEIR, the "project" does not propose the addition of 10,700 dwelling units, since 4,894 dwelling units have already been analyzed in previously certified environmental studies. The comment also suggests that the project has the potential to impact traffic based upon an assumed "weekend visitation" rate of 1 beach visit per 20 households in the project. However, the rate suggested is purely hypothetical and the suggestion of an impact is accordingly speculative.

A15-53 The commentator presents both general and specific concerns about use of the Irvine Transportation Analysis Model (ITAM) for traffic impact analysis purposes. ITAM is an accepted and regionally certified traffic forecasting tool that tiers from subregional and regional traffic models currently used in Southern California. It accounts for the interaction of trip attractions and productions generated by the project and all surrounding areas, including Laguna Beach. The purpose of such an analysis tool is to provide realistic and reliable traffic projections, and ITAM post-processing methodologies help ensure that raw model data is appropriately tied to model validation year ground counts. The "Ratio Method" sometimes utilized for this purpose was not employed for the study intersections analyzed in the Traffic Impact Analysis, though it was employed for roadway segment ADT.

As noted above, the reality of drivers selecting alternative routes and destinations in response to congestion is simulated in ITAM. Vehicle trips being added by new development always interact to some degree with existing land uses in ways that displace prior travel patterns, and the net result is not always an increase in volumes throughout the entire roadway network. Data provided in the attached Table 6 (see Appendix E of this FSSEIR) provides substantial evidence to this fact along SR-133 in the vicinity of El Toro Road, as discussed in Responses A15-50 and A15-51 above.

The commentator specifically questions the 2015 peak hour traffic projections at the intersection of SR-133 and the SR-73 Northbound Ramps ("Intersection 322").

In response to concerns expressed regarding ITAM 2015 projections on SR-133 at SR-73, the attached Table 10 (see Appendix E of this FSSEIR) contains a sensitivity analysis of increased peak hour ITAM 2015 projections at intersections on SR-133 at the SR-73 Tollway (intersections 322 and 323 in the Draft SSEIR Traffic Impact Analysis)) based on the application of updated recent counts at these locations. The results of this analysis indicate that conditions worsen for AM peak hour conditions with or without the project at the intersection of SR-133 and the SR-73 Northbound Ramps (intersection 322), similar to the results previously shown in Chapter 5 of the Draft SSEIR Traffic Impact Analysis for Existing Plus Project conditions. The 2012 Modified Project does not create a significant impact at these locations, even with updated ITAM 2015 forecasts. The Final SSEIR Traffic Impact Analysis updates the

ITAM 2015 projections. The conclusions of the Draft SSEIR regarding project impacts do not change.

A15-54 The commentator asserts that the "the DSSEIR's compilation of traffic impacts based on a flawed hypothetical compilation of future baselines understates project traffic impacts." The commentator raises a concern that the SSEIR does not satisfy CEQA's requirement to disclose mitigation for impacts resulting from the Existing Plus Project condition. The SSEIR addresses CEQA section 15125 (a) by providing both an "Existing + Project" analysis and a short term Year 2015 analysis with and without the project. Impacts are identified for the Existing Plus Project condition at the intersection of Culver/University and the SR-133 NB loop on-ramp at Barranca Parkway. See Topical Response 2, Baseline.

At the intersection of Culver Drive & University Drive, improvements are already identified in the NITM program and the University of California, Irvine Long Range Development Plan. Traffic projections for all future scenarios with these improvements result in acceptable levels of service.

The SR-133 northbound loop on-ramp at Barranca Parkway is not impacted under future conditions (cumulative 2015, 2030 and Post-2030 scenarios), and the proposed improvement for this ramp (conversion of the HOV preferential lane to a second metered mixed-flow lane) is not a NITM Program improvement. In the event that the pending projects evaluated in the traffic impact analysis are approved, this location is identified as a project impact in 2015, in the 2012 Modified Project Option 2 scenario and the Project would participate in the implementation of the mitigation improvement on a fair share basis.

The commentator states that the 2015 traffic model has no direct connection to measured existing traffic conditions. However, this is not correct since 2015 traffic forecasts are run through a post-processing procedure which incorporates existing counts. The commentator's concerns regarding the baseline are expressed within the context of ITAM. The commentator states that it is a comprehensive simulation tool that "completely adjusts the origin-destination patterns and route choices of existing roadway users" and "synthesizes a hypothetical future baseline" which is allowed to "break contact with the measured traffic environment." ITAM is utilized because it does adjust the origin-destination patterns of existing roadway users. Vehicle trips being added by new development always interact to some degree with existing land uses in ways that displace prior travel patterns, and the net result is not always an increase in volumes throughout the entire roadway network. Data provided in the attached Table 6 (see Appendix E of this FSSEIR) provide substantial evidence to this fact along SR-133 in the vicinity of El Toro Road, as discussed in Responses A15-50 and A15-51.

If the City had used an analysis approach that simply overlaid a hypothetical distribution of project traffic on SR-133 approaching Laguna Beach to evaluate its various residential projects which have been built and occupied during the past 15 years, the traffic volumes on SR-133 in the vicinity of El Toro Road would have been severely exaggerated. Measured traffic counts along SR-133 in the vicinity of El

Toro Road during the past 15 years, as provided in Table 6 of Appendix E, validate the ITAM findings that more homes instead of businesses at the project site do not significantly impact SR-133 south of SR-73.

In regard to ITAM Interim Year (2015) traffic projections contained in the Draft SSEIR Traffic Impact Analysis, refer to Response A15-53. The conclusions of the Draft SSEIR regarding project impacts do not change.

A15-55 The commentator notes errors and inconsistencies in SR-133 traffic data presented in the Draft SSEIR Traffic Impact Analysis. These errors are acknowledged and corrected, but do not change any of the conclusions in the Traffic Analysis. As noted in the Response A15-51, the attached Tables 11 to 14 (see Appendix E of this FSSEIR) summarize the daily traffic volumes along segments of Laguna Canyon Road between El Toro Road and the I-405 Freeway. The Traffic Impact Analysis included in the Draft SSEIR included data posting errors on four segments of Laguna Canyon Road, so the Final SSEIR contains corrections to the exhibits from the Traffic Impact Analysis for daily volumes along Laguna Canyon Road between El Toro Road and the I-405 Freeway. In regard to the improvement in v/c and LOS depicted in the ITAM Interim Year (2015) traffic projections along SR-133 that are contained in the Draft SSEIR Traffic Impact Analysis, refer to Response A15-53.

Note that the ramp intersection analyses of SR-73 at SR-133 and at El Toro were confirmed to be adequate. No impacts are identified for any study year analyzed (Existing Plus Project, 2015, 2030, Post-2030) for these ramp intersection locations referenced in the comment. Additionally, a typographical correction to Exhibit 4-6 addresses the commentator's concerns regarding the lane configuration assumptions on El Toro Road between SR-73 and SR-133 in the Year 2015 analysis. This roadway segment is an existing two-lane undivided roadway and will remain as such until it is widened to a four-lane divided roadway, as identified in Table 4-7 of the traffic study.

A15-56 The commentator asserts that the whole of the project is not evaluated, and notes the project changes in peak hour directionality from 2003 involve major changes in traffic flow patterns. The Traffic Impact Analysis evaluates existing conditions based upon recent traffic counts, and also presents the analysis and findings for Existing Plus Option 1 Project and Existing Plus Option 2 Project conditions (refer to Chapter 5 of the Traffic Impact Analysis). The comparisons of "with project" and "without project" conditions indicate that more homes in place of non-residential uses at the project site do not translate into traffic impacts on SR-133 in the vicinity of Laguna Beach.

Changes in the directionality of peak hour trips reflect the improved land use balance of the 2012 Modified Project. As noted on Page 5.9-12 of the DSSEIR, Irvine is a jobs-rich community and residential projects help improve the balance between job-generating uses and homes. The 2012 Modified Project contains more residential units and less non-residential square footage than the 2003 OCGP EIR Project as well as the 2011 Approved Project, and therefore it will contribute to improving the jobs-housing balance for the project site as well as the City of Irvine as a whole.

The 2003 OCGP EIR project had more trips inbound than outbound during the AM peak hour, resulting in more commuters and visitors traveling from outside the area and into the Combined PA 51 with less opportunity for improved balance between inbound and outbound trips. A similar but less severe imbalance occurs during the PM peak hour with the 2003 OCGP EIR project, by way of more trips inbound than outbound. The 2012 Modified Project further balances the mix of land uses on-site, resulting in nearly the same amount of inbound and outbound activity during both the AM and PM peak hours. The attached Tables 1 to 5 (see Appendix E of this FSSEIR) clearly document the changes in directionality of AM and PM peak hour trip generation, using ITAM trip generation rates for comparison purposes. The projects directionality changes are analyzed in existing, 2015, 2030 and post-2030 conditions, both in the 2011 project and the incremental change with the 2012 project.

Land use changes to improve the balance of on-site travel behavior for the project include residential density bonus units (with significant commitments of low income housing) and neighborhood parks and increases in school capacity (K-8 and High School). The additional schools and parks and density bonus units for the project increase the daily and peak hour trip generation in comparison to the 2003 OCGP EIR project as well as the 2011 Approved Project. These increases in trip ends are the result of evolving efforts to capture more trips in the immediate area through improved jobs/housing balance. The result is a combination of traffic volume decreases and increases on surrounding roadways, which are evaluated based upon a comprehensive travel demand modeling process and traffic analysis covering a broad study area.

A15-57 The commentator asks for clarification of assumed person-occupancy for various types of dwelling units, and the basis for those assumptions. ITAM conservatively assumes an average occupancy of 3.05 persons per dwelling unit for single family detached residential, with 1.7 resident workers per dwelling unit. This is somewhat higher than the estimated persons per single family household of 2.94 based upon the City of Irvine General Plan (as shown in Table 5.9-8 of the Draft SSEIR).

ITAM conservatively assumes an average occupancy of 2.80 persons per dwelling unit for multifamily residential, with 1.6 resident workers per dwelling unit. This is also somewhat higher than the estimated persons per multifamily household of 2.29 based upon the City of Irvine General Plan (as shown in Table 5.9-8 of the Draft SSEIR). The analysis of population and housing in the Draft SSEIR is based, in part, on these sources:

- Orange County Projections 2010 Modified, Center for Demographic Research, CSUF, January 2012.
- Table 2: E-5 City/County Population and Housing Estimates, California Department of Finance, January 2010 and January 2011.
- American Community Survey 1-Year Estimates, United States Bureau of the Census, 2010.
- US Census, United States Bureau of the Census, 2000 and 2010.

A15-58 The commentator asks for clarification of the ITAM trip distribution process which yields one percent of project trips oriented to/from Laguna Beach. ITAM derives zone trip distribution patterns from its parent model, the OCTAM. Trip distribution estimates are based on trip distribution patterns estimated by the regional travel demand model and incorporated into the subarea model. The number of trips attributed to the primary study area in the regional model is adjusted to match the project trip generation using an analytical approach commonly referred to as the Fratar method, as required in Orange County to maintain consistency between local and sub regional forecasts.

In order to distribute / assign project traffic, the OCTAM socioeconomic data (SED) is maintained as the background dataset, which is used to produce trip tables that drive ITAM. When a new type of trip (or a substantial change in trips) is proposed, OCTAM is updated in the project area in order to develop trip tables for use in the ITAM factoring process. In this case, the proposed project's residential, employment, and school data were updated on the project site to provide a representative pool of distributed trips which were then factored by ITAM to develop project trip distribution characteristics. The resulting trip distribution patterns for the proposed project are consistent with nearby traffic zones, particularly the SR-133 corridor south of I-405, as shown on the project trip distribution diagrams which are included in the following traffic studies: and are confirmed by similar distribution percentages from OCTAM:

a. "Planning Area 33 (Lots 105 and 107/108) General Plan Amendment and Zone Change Traffic Study", Stantec, March 2012.

b. "City of Irvine Planning Area 6 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., November 2011.

c. "City of Irvine Planning Area 40 Vesting Tentative Tract Map 17277 Traffic Study," Austin-Foust Associates, Inc., October 2010.

d. "City of Irvine Planning Area 40/Planning Area 12 (Traveland Site) GPA/ZC and Planning Areas 1 and 9 Density Transfer Traffic Study," Austin-Foust Associates, Inc., June 2008.

e. "City of Irvine Planning Areas 18, 33 (Lot 109), 34 and 39 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., February 2006.

f. "City of Irvine Planning Areas 1 and 9 General Plan Amendment and Zone Change Traffic Study", Austin Foust Associates, Inc., February 2005.

g. "City of Irvine Planning Area 17 Tentative Tract Map Traffic Study", Austin Foust Associates, Inc., May 2001.

h. "Planning Area 17 Traffic Study", Austin-Foust Associates, Inc., July 2000.

The unique trip distribution pattern for each residential development evaluated in these studies indicates that no significant project traffic impacts occur on SR-133 south of SR-73. See also response A15-28.

A15-59 The commentator asks whether the assumption of a 25 percent reduction in VMT made in the GHG analysis "through trip capture" was consistent with the analysis in the Traffic Impact Analysis, whether the Traffic Impact Analysis made undisclosed assumptions regarding "'trip capture' (passerby-attraction discounts, internal trip discounts or other reasons)" and why the GHG analysis did not use VMT projections from ITAM. The GHG analysis is consistent with the Traffic Study for the reasons explained below.

The GHG analysis relies upon a standard methodology and references for such analyses. Specifically, as explained in Appendix D of the DSSEIR, the Climate Change and Greenhouse Gas Technical Report ("GHG Technical Report"), ENVIRON, the City's technical consultant, estimated GHG emissions from mobile (traffic) sources using the trip rates provided by the traffic study and California Emission Estimator Model version 2011.1.1 (CalEEMod) default inputs for trip lengths, trip purpose, and trip type for the land uses included in the 2012 Modified Project. In addition, ENVIRON considered the following mitigation measures based on information provided by the applicant for the 2012 Modified Project (with and without optional conversion): (1) density of approximately 9.6 dwelling units per acre to 11 dwelling units per acre; (2) Proposed Project Site will have a density of intersections per square mile similar to that for the 2011 Approved Project; (3) Proposed Project Site is located no more than 2 miles from downtown or job center; (4) Proposed Project Site is located no more than 4 miles from transit centers.; (5) in addition to the 544 below market rate units included in the 2011 Approved Project, the 2012 Modified Project will include up to an additional 512 below market rate units and the 2012 Modified Project with Optional Conversion will have up to an additional 645 such units; and (6) the 2012 Modified Project will have connecting pedestrian and bike paths both on the Proposed Project Site and off-site.

The CalEEMod model default trip lengths do not account for project-specific characteristics such as the fact that the 2012 Modified Project is a compact infill development. As discussed in detail in Section 5.4.4 of the SSEIR and Section 3.3.5 of D of the SSEIR (the GHG Technical Report), ENVIRON utilized the methods discussed in the California Air Pollution Control Officer Association's (CAPCOA) publication entitled "Quantifying Greenhouse Gas Mitigation Measures" (August 2010) to estimate an adjustment to the CalEEMod default settings to reflect the reduction in VMT for the mitigation measures included in the 2012 Modified Project as project design features or mitigation measures assuming a compact infill project setting. The 2012 Modified Project is expected to maintain the characteristics typical of compact infill development, as described above, and similar to those in the 2011 Approved Project. The methods in the CAPCOA publication use the inputs for trip rates, trip lengths, and criteria describing the mitigation and project design features to estimate the VMT and the associated GHG emissions. Based on this level of mitigation, the 2012 Modified Project (with and without optional conversion) could result in over 30 percent reduction in VMT based on the caps for compact infill.

However, according to the CAPCOA Manual, a limited number of case studies in Southern California described as compact infill show slightly lower levels of observed mitigation. Therefore, to be conservative, ENVIRON adjusted the CalEEMod default settings to reflect an assumption of only a 25 percent reduction in VMT, which is within the range observed in Southern California.

Therefore, as shown above, the VMT reduction assumed in the GHG analysis was not estimated or achieved through trip capture, as the commentator asserts. Nor was it based on trip capture assumptions in the Traffic Impact Analysis, as the VMT was projected through CalEEMod, not ITAM. Furthermore, ITAM and the project's traffic analysis do not include any such "trip capture" assumptions. The GHG analysis relies upon standard methodology and references for estimating VMT when calculating GHG emissions inventories, as discussed above.

However, even if the ITAM model had been used to estimate VMT for the 2012 Modified Project, the final conclusions of the GHG analysis would not change. The GHG analysis estimates, using CalEEMod, that the 2012 Modified Project would generate 309,629,145 VMT/year (see Table 8 of Appendix D of the DSSEIR), while ITAM would estimate 334,986,190 VMT/year. While ITAM estimates a slightly higher VMT/year as compared to CalEEMod, the GHG efficiency metric for the 2012 Modified Project assuming ITAM-estimated VMT would be 4.73 MT/SP per year (or 4.61 MT/SP per year for the 2012 Modified Project with Optional Conversion), and would still fall below the significance threshold of 4.8 MT/SP per year.

A15-60 The commentator suggests reducing the trips generated by the 2012 Modified Project by reducing the density bonus units. Commentator's suggestion would violate state law. Government Code section 65915 requires municipalities to grant a density bonus of up to 35 percent if a project includes a certain amount of affordable housing and complies with the statutory requirements. (Gov't Code section 65915(b)(1); *Wollmer v. City of Berkeley* (2009) 179 Cal.App.4th 933.) Further, Government Code section 65915 prohibits the City from applying any development standard that will have the effect of "physically precluding the construction of a development meeting the criteria of [the State Density Bonus Law] at the densities or with the concessions or incentives permitted by [the State Density Bonus Law]." (Gov't Code section 65915(e)(1).) Therefore, forcing the applicant to forgo the density bonus units to which it is entitled is legally infeasible. An alternative reducing the number of market rate and density bonus units is discussed in the conversion option. In addition, the Traffic Impact Analysis and associated mitigation addresses impacts of all housing units, including density bonus units.

A15-61 The commentator states that the Traffic Impact Analysis does not assess the impacts of the proposed amendment to the General Plan to allow LOS "E", in conjunction with traffic studies for development proposed in Combined Planning Area 51, to be considered acceptable for application to intersections impacted in Planning Areas 13, 31, 32, 34, 35, 39 and a portion of 51 south of Marine Way.

The adopted General Plan and the 2011 Approved Project already allows for the consideration of an LOS E threshold at intersections in PA 30. Revisions are necessary to the General Plan to reflect combining PA 30 into PA 51 and to allow for this consideration adjacent to higher density residential developments similar to the IBC and Irvine Spectrum areas. The 2012 Modified Project also proposes to expand the ability to apply LOS "E" to the area just north of the Irvine Station between the rail line and Marine Way. Due to the planned higher density transit oriented development that will be served by the nearby Irvine Station the expansion of the policy is appropriate. Overall, the revisions would allow for a more consistent application of the policy for higher density and transit oriented development similar to the IBC and Spectrum, where the LOS "E" threshold is allowed.

Moreover, the Traffic Impact Analysis notes that LOS "E" would only be acceptable at selected locations subject to participation/funding to an upgraded traffic signal system as defined in the Traffic Management Systems Operations Study (TMSOS) and/or an Advance Traffic Management System (ATMS), which may be in place at the time of processing of the individual traffic studies. As required by City policy, the applicant will be required to pay appropriate TMSOS and/or ATMS fees. The City, in conjunction with specific traffic studies, shall determine the level of participation/funding using criteria and a process developed concurrently. The Traffic Impact Analysis does not rely upon this application of LOS "E" acceptability or any other change in LOS standards during the course of evaluating traffic impacts associated with the 2012 Modified Project. All identified project mitigation is based on existing General Plan LOS "D" thresholds, unless already identified in the existing General Plan as LOS "E" acceptable.

For the reasons stated herein, the City has concluded that the traffic analysis prepared for the 2012 Modified Project adequately addresses the potential traffic impacts of the project.

A15-62 See response to the previous comments. Recirculation of an EIR is only required when the addition of new information to a DEIR deprives the public of a meaningful opportunity to comment on substantial adverse projects, feasible mitigation measures, or alternatives that are not adopted (14 Cal. Code Regs. § 15088.5(a); Laurel Heights II 6 Cal. 4th at 1129). Recirculation is required:

- When the new information shows a new, substantial, environmental impact resulting either from the project or from a mitigation measure;
- When the new information shows a substantial increase in the severity of an environmental impact, except that recirculation would not be required if mitigation that reduces the impact to insignificance is adopted;
- When the new information shows a feasible alternative or mitigation measure, considerably different from those considered in the EIR, that clearly would lessen the environmental impacts of a project and the project proponent declines to adopt it;

- When the DEIR was "so fundamentally and basically inadequate and conclusory in nature" that public comment on the DEIR was essentially meaningless.

As none of these conditions has been met, recirculation of the DSSEIR is not warranted.

LETTER A16 – Robert Hawkins for Friends of Continued Good Planning in Irvine (51 pages)

LAW OFFICES OF ROBERT C. HAWKINS

September 7, 2012

Via e-mail (bcurtis@ci.irvine.ca.us) and
Hand Delivery

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Re: **The City of Irvine's (the "City" or "Irvine") Draft Second Supplemental Environmental Impact Report ("DSSEIR") for the Heritage Fields Project 2012 General Plan Amendment and Zone Change (the "Project")**

Greetings:

Thank you for the opportunity to comment on the captioned document for the Project. This firm represents the Friends of Continued Good Planning in Irvine (the "Friends" or "FCGPI") which is an unincorporated association of persons and Irvine residents who want to continue the world class planning of the City. Also, please find attached your email to me dated August 21, 2012 in which you indicated that the City had continued the comment period on the captioned DSSEIR to September 7, 2012. Also, find attached your August 15, 2012 letter to the same effect.

As you know, the City of Irvine with few exceptions is recognized around the world for its land use planning. The Friends are proud of that, enjoy their homes and active lifestyles because of that, and are thoroughly disappointed and disgusted that the captioned Project threatens to hurt the City, its residents, and the City's preeminent reputation for good land use planning. Indeed, the Great Park Project provides an important and singular opportunity to further and improve that record. Unfortunately, the captioned document and Project squanders that opportunity and sullies the City's formerly impressive land use reputation. A16-1

On behalf of the Friends, we offer the following comments on the DSSEIR. We offer the following summary of concerns, a summary of the legal standards for the DEIR, and then a detailed discussion of the critical problems with the DSSEIR.

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I. Summary of Concerns: The City Should Prepare an Entirely New EIR for the Project.

For the reasons discussed below and identified in this section, the City should revise the DSSEIR or prepare a comprehensive revision to the Program EIR to address the following issues which are discussed fully below:

1. The Program DEIR fails to accomplish its purpose of analyzing Project impacts and proposing necessary mitigation, because the Project conflicts with and cannot attain its Objectives.

2. The Project Description is flawed and inadequate in that it fails to describe the complete Project and engages in piecemeal analysis of various pieces of the overall Great Park Project. In addition, the Project Description fails to describe the Project fully and fails to describe each of the Project features.

3. The DSSEIR fails to employ the appropriate environmental baseline for the impacts analysis: it uses the 2011 Project plan as the baseline. The appropriate CEQA baseline is the conditions on the ground today: vacant land. This failing undercuts the entire impacts analysis, because the true impacts of the full Project are not analyzed by comparison with the conditions on the ground today. A16-2

4. The DSSEIR fails to analyze the Project's Aesthetic impacts, because in part it fails to describe the full Project and because it uses the wrong environmental baseline.

5. The Project will have impacts on agricultural which are not analyzed by the DSSEIR.

6. The analysis of the Project related impacts on air quality and Greenhouse Gases are inadequate and fail to analyze the full Project and fails to analyze correctly the impacts.

7. The analysis of the Project's impacts on hazards and hazardous material fails to provide a complete analysis of the Project impacts on these categories.

8. The analysis of the Project's impacts on hydrology and water quality is inaccurate and misleading, and fails to describe clearly and analyze the hydrological objectives of the Project and its water quality.

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9. The analysis of Project impacts on land use is flawed and inadequate, fails to explain crucial issues and impacts, fails to describe the Project fully, analyze the Project's land use impacts correctly, and fails to provide necessary and adequate mitigation.

10. The DSSEIR fails to analyze correctly the Project's impacts on Population and Housing, to understand the Project, and to provide necessary mitigation.

11. The DSSEIR fails to provide a complete and thorough discussion of the Project's impacts on Public Services.

11. The discussion of the Project's impacts on Recreation is incomplete and requires revision.

12. The analysis of Project impacts on traffic and circulation is incomplete, inadequate and erroneous in that it fails to provide adequate mitigation. A16-2 cont'd.

13. The DSSEIR fails to provide the appropriate environmental baseline to assess both Significant and Unavoidable Impacts as well as those impacts that the DSSEIR finds are insignificant.

14. The DSSEIR's Alternatives Analysis fails due to the twin problems of inadequate Project Description and the wrong environmental baseline, and it fails to consider other reasonable alternatives.

15. The DSSEIR fails to analyze correctly the Mandatory Findings for the Project, fails to analyze correctly the growth inducing impacts of the Project, and fails to assess the Project's long term impacts.

Because revising the DSSEIR to address these and other issues will result in substantial changes in the DSSEIR, involve significant new information, and require a full redefinition of the full Project and the environmental setting, the City should prepare a new Program EIR which will analyze fully all Project features, impacts, and mitigation rather than the proposed 2003 Program EIR, eight Addenda, and two Supplemental EIRs. The City should circulate this new Program EIR for public review and comment, conduct public hearings on it, and then, if appropriate, consider certification of the new Program EIR.

II. Introduction: EIR Standards. A16-3

An EIR constitutes the heart of CEQA, Public Resources Code sections 21000 et seq.: An EIR is the primary environmental document which:

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> ". . serves as a public disclosure document explaining the effects of the proposed project on the environment, alternatives to the project, and ways to minimize adverse effects and to increase beneficial effects."

CEQA Guidelines section 15149(b). See California Public Resources Code section 21003(b) (requiring that the document must disclose impacts and mitigation so that the document will be meaningful and useful to the public and decision-makers.)

> Further, CEQA Guidelines section 15151 sets forth the adequacy standards for an EIR:
>
> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith attempt at full disclosure."

Further, "the EIR must contain **facts and analysis**, not just the agency's bare conclusions or opinions." Concerned Citizens of Costa Mesa, Inc. v. 32nd District Agricultural Association. (1986) 42 Cal. 3d 929, 935 (Emphasis supplied.). A16-3 cont'd.

An agency's determination in connection with an EIR must be supported by substantial evidence. Public Resources Code sections 21168 and 21168.5. "[S]ubstantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." Public Resources Code section 21080(e)(1). However, "[r]elevant personal observations such as [personal observations about noise] can constitute substantial evidence." Oro Fino Gold Mining Corp. v. County of Del Oro (1990) 225 Cal. App. 3d 872, 882.

In addition, an EIR must specifically address the environmental effects and mitigation of the Project. But "[t]he degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." CEQA Guidelines section 15146. The analysis in an EIR must be specific enough to further informed decision making and public participation. The EIR must produce sufficient information and analysis to understand the environmental impacts of the proposed project and to permit a reasonable choice of alternatives so far as environmental aspects are concerned. See Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal. 3d 376.

Also, to the extent that an EIR proposes mitigation measures, it must provide specific measures. It cannot defer such measures until some future date or event. "By deferring environmental assessment to a future date, the conditions run counter to that policy of CEQA

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which requires environmental review at the earliest feasible stage in the planning process." Sundstrom v. County of Mendocino (1988) 202 Cal. App. 3d 296, 308. See Bozung v. Local Agency Formation Com.(1975) 13 Cal.3d 263, 282 (holding that "the principle that the environmental impact should be assessed as early as possible in government planning."); Mount Sutro Defense Committee v. Regents of University of California (1978) 77 Cal. App. 3d 20, 34 (noting that environmental problems should be considered at a point in the planning process "where genuine flexibility remains"). CEQA requires more than a promise of mitigation of significant impacts: mitigation measures must really minimize an identified impact.

A16-3 cont'd.

"Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. (Citation omitted.) On the other hand, an agency goes too far when it simply requires a project applicant to obtain a biological report and then comply with any recommendations that may be made in the report. (Citation omitted.)" Defend the Bay v. City of Irvine (2004) 119 Cal. App. 4th 1261, 1276.

III. Section 1: The Executive Summary. This Is Inadequate and Erroneously Limits the DSSEIR to Simply Analyzing Changes from the 2011 Project. CEQA Requires More.

Generally, an EIR contains an executive summary of everything in the DSSEIR: that is, it summarizes the document. The Executive Summary for the DSSEIR improperly characterizes the Project, previous projects and previous environmental documents which the DSSEIR references and attempts to build on. CEQA requires that this foundation is built on facts established in the administrative record. Unfortunately, the DSSEIR does not and cannot do this: the foundation for the DSSEIR is fantasy and illusion, not facts. Let us explain our objections.

The base environmental document is the 2003 Program EIR ("2003 PEIR") for the Great Park Project . The Great Park Project included 3,625 residential units and 6,585,594 million square feet of non-residential development which included the Great Park itself and "other non-Great Park Neighborhood uses." This is fine as far as it goes.

A16-4

However, Section 1 continues to weave a story of a series of interlocking projects and environmental documents which continue to change the Project and the 2003 PEIR's impact analysis, piece by piece. It states that the City has prepared and approved seven addenda to the 2003 Program EIR, a 2011 Supplemental EIR, and a 2011 Addenda. Overall, the City has prepared and approved the original 2003 PEIR and **nine** subsequent environmental documents and projects. The DSSEIR will be the **tenth "tweak"** to the original 2003 PEIR. However, as with Frankstein's monster, the 2012 Project bears no resemblance to its original. As indicated above, the DSSEIR cannot build on this ever changing foundation with repetitive internal references.

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In order to comply with CEQA, the City must prepare an informational EIR:

> "An EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency."

Public Resources Code section 15121(a). However, the DSSEIR is far from an informational document which explains the Project. In order to understand the Project, the decisionmakers and the public must review the 2003 Program EIR, the eight Addenda, the 2011 SEIR and the DSSEIR. The fails to satisfy the requirements of CEQA. The recommended course is that the City must prepare a new Program Environmental Impact Report which will analyze the entire Project and each piece of it. The public cannot keep track of this ever changing monster.

The City has already run into this problem before: the residential transformation of the Irvine Business Complex. There, after several aborted starts and many millions of dollars in legal fees, the City finally opted to prepare a new and full program environmental impact report that went unchallenged. It should and must do the same thing here: Prepare a new Program EIR.

Moreover, after nine "project-level" documents, the City has prepared yet another "project-level" environmental analysis. As discussed below, this project level analysis cannot assume anything: other projects, other approvals, nothing. This "project-level" document begins at ground zero. As we have said above, the DSSEIR fails because it does not begin at the beginning.

A16-4 cont'd.

Section 4.1 is the "Project Summary." The Project Summary indicates that the 2012 Project seeks to provide the applicant with maximum flexibility but this creates uncertainty as to the ultimate uses which may create significant environmental impacts. and seeks to limit the controls of the City and its residents. For instance, it seeks to combine two Planning Areas, PA 30 and 51 into the new "Combined PA 51." This requires a General Plan Amendment. Although PAs 30 and 51 share only a small border, the combined Planning Area will be larger than any other Planning Area. Further, the Project seeks to make several zoning changes: each change gives the applicant flexibility in planning the zone and creates uncertainty as to the ultimate use. This uncertainty may create a significant impact as to the ultimate use of this feature of the Project.

Another example of this increased applicant flexibility and uncertainty are the changes to Land Use Category 8.1/8.1B Trails and Transit Oriented Development: these changes propose to eliminate site coverage restrictions outside of set back areas and eliminate height restrictions for areas within ½ mile of a train station or transportation center.

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The "Project Summary" incorrectly states what occurs in the amendment of the Master Plan of Arterial Highways ("MPAH"). It states:

> "Amends the Master Plan of Arterial Highways, Figure B-1, to eliminate the extension of Rockfield Boulevard from the eastern boundary of the Proposed Project Site to Marine Way once the Orange County Transportation Authority (OCTA) has approved this proposed amendment to the countywide Master Plan of Arterial Highways (see Figure 3-4, Proposed MPAH Amendment)."

This is not the proper method to obtain an amendment to the MPAH. Indeed, throughout Section 1, the DSSEIR continues to regard this amendment as one to the MPAH, not an Amendment to the City's Circulation Element. This is incorrect: The City must first amend its Circulation Element; and then it must seek an amendment to the MPAH.

OCTA's Guidance for Administration of the Master Plan of Arterial Highways' (the "Guidance") discusses the procedures to amend the MPAH. Section 4.1 2. requires: A16-5

> "Any proposed changes to the MPAH shall not result in any significant adverse impacts to the MPAH system (in terms of capacity and level of service), and this shall be demonstrated prior to approval of the proposed changes."

Guidance, Exhibit I-1, at page 11. It also provides that the process begins with:

> "A local agency must **first amend its General Plan Circulation Element** in accordance with the MPAH Amendment Process shown in Figure 1, before OCTA amends the MPAH."

Id. at Section 4.1 3, page 11 (Emphasis supplied). Hence, the Project cannot seek to amend the MPAH under the Guidance but rather seeks to amend the Circulation Element of the General Plan. Of course, this may adversely affect the changes to the Zoning Code that the Project requires to be made, because one of the findings for such changes is that they comply with the General Plan. Because the Project requires amendment of the Circulation Element.

The Project Summary indicates that the Project will seek to amend or, as the DSSEIR states, "modifies" other portions of the Circulation Element including Objective B-1 which states that Level of Service (LOS) "D" is the minimum LOS for most areas of the City except for those specifically excepted including the Irvine Business Complex and intersections in the Great Park. So, the General Plan currently allows the specified intersection in the Project function at a lower LOS than most of the City. The Project seeks to change or modify LOS for those intersections. A16-6

Section 1 attempts to discuss "Areas of Controversy." The only area of controversy listed concerns schools in the Project area. However, as indicated above, other areas of controversy A16-7

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exist including the illegal piecemealing of the Project, the extensive General Plan Amendments and Zone Code changes, and the improper analysis of the correct process to amend the MPAH. A16-7 cont'd.

As discussed throughout, the City must reject the DSSEIR: it fails to meet the CEQA standard: it is not an informational document. In order to understand the Project and the analysis, the decisionmakers and the public must refer to ten earlier documents in addition to the DSSEIR. The City must prepare a new Program EIR for the full Project. A16-8

IV. Section 2: The Introduction. It Fails to Contain Clear Statement of the Purpose of the DSSEIR and the Project, Improperly Identifies an Environmental Baseline, and Erroneously Includes by Reference Numerous Environmental Document which are Not Generally Available.

The Introduction attempts to provide a clear and concise statement of the purpose of the DSSEIR. Unfortunately, it is unsuccessful: the Introduction states that the DSSEIR simply address the changes between the Project and that analyzed in the 2001 SEIR. Further, the Introduction states that the "[t]he 2011 Approved Project is the 'baseline' for the analysis in this DSSEIR." As argued below in connection with Section 3, "The Environmental Setting," and suggested above, the current baseline for the Project is the **current conditions on the ground currently at the Great Park.**

The Supreme Court recently established the CEQA standard for the environmental baseline. In Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal. 4th 310 ("South Coast AQMD") , the Supreme Court held that the environmental baseline is CEQA is generally the existing conditions on the ground. There, the South Coast Air Quality Management District prepared a negative declaration for a refiner project by Conoco-Philips. Among other things, the District argued that the environmental baseline was maximum output of the refinery which had valid permits to operate it at the site even though the refinery had yet to be built. Among other things, ConocoPhillips argued that failure to use the maximum permitted operations as a baseline would violate ConocoPhilips vested rights and contravene CEQA's statute of limitations. A16-9

The Court reviewed the case law and stated:

> A long line of Court of Appeal decisions holds, in similar terms, that the **impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis**, rather than to allowable conditions defined by a plan or regulatory framework. This line of authority includes cases where a plan or regulation allowed for greater development or more intense activity than had so far actually occurred, n6 as well as cases where actual development or activity had, by the time CEQA analysis was begun, already exceeded that allowed under the existing regulations. n7 In each of these decisions, the appellate court concluded the baseline for CEQA

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> analysis must be the "existing physical conditions in the affected area" (*Environmental Planning & Information Council v. County of El Dorado*, *supra*, 131 Cal. App. 3d at p. 354), that is, the "'real conditions on the ground'" (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, *supra*, 87 Cal.App.4th at p. 121; see *City of Carmel-by-the-Sea v. Board of Supervisors*, *supra*, 183 Cal. App. 3d at p. 246), rather than the level of development or activity that could or should have been present according to a plan or regulation."

Id. at 320-21 (Emphasis supplied). The Court held that:

> "Applied here, this general rule leads to the conclusion the District erred in using the boilers' maximum permitted operational levels as a baseline. By treating all operation of the boilers within the individual limits of their permits to be part of the environmental setting, or baseline, the District ensured that no emissions from increased boiler operation would be considered an environmental impact so long as no single boiler operated beyond its permitted capacity."

A16-9 cont'd.

Id. at 322. See Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2012) 205 Cal. App. 4th 552 petition for review granted 2012 Cal. LEXIS 7556 (to the opposite effect; opinion was depublished pending the Supreme Court review).

Hence, under South Coast AQMD, the DSSEIR uses an improper baseline: the 2011 Project though entitled does not establish the environmental baseline for CEQA purposes. The applicant and the City may want this baseline and may include it in an alternative analysis for the environmental analysis. However, they must use at the very least the environmental conditions on the ground to determine the impacts of the Project.

This argues for a completely new environmental analysis which does not build on the previous ten environmental documents but one which analyzes the entire Project as compared to the conditions on the ground. That is, as indicated above, the City should prepare a new Program EIR for the full Project.

Section 2.4.3 notes that the Project will have significant and unmitigated traffic impacts which will require participation of other cities to mitigate fully and completely. This means under OCTA's Guidance that, in addition to an amendment to the City's Circulation Element, the City must initiate a Cooperative Study with the affected jurisdictions so that any amendment will not be found to affect the MPAH adversely.

A16-10

Finally, Section 2.5 incorporates by reference the ten earlier environmental documents including the 2003 Program EIR, the 2011 Supplement EIR, and the eight previous Addenda. Unfortunately, although City Staff has been very helpful in obtaining these documents, they are not generally available and are not part of or an Appendix to the DSSEIR.

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As indicated throughout, the City must reject the DSSEIR. It fails to describe the Project correctly and it fails to analyze the Project's impacts using the correct environmental baseline which is the current conditions on the ground today, vacant land. A16-12

V. Section 3: the Project Description. The Project Description is the Key Section; It Is Flawed, Incomplete, and Is Improper Segmenting the Project into Small Pieces. The DSSEIR Must be Revised into a New Program EIR for the Project.

Section 3.2 discusses the Project Objectives for what it calls the 2012 Modified Project (hereafter the "Project"). It is interesting from several perspectives.

First, Section 3.2.1 addresses Land Use Objectives which include implementing the 2011 Project and its objectives. However, as indicated above, the Executive Summary indicated that the 2012 Modified Project would allow for the conversion of non-residential square footage to residential uses. However, Section 3.2.1 recognizes that this conversion is a Project Objective:

> "Convert existing non-residential intensity to residential uses through a revised land use plan in Combined PA 51, thereby providing a better balance of population and employment to increase internal trip capture and reduce vehicle miles travelled and improve the jobs/housing balance in jobs-rich Irvine."

DSSEIR, page 3-2. Hence, the Project is not simply to allow for the conversion, but it is actually to convert non-residential uses into residential uses. Hence, the DSSEIR needs to analyze this Project feature: increased residential units. A16-13a

Second, Section 3.2.2 discusses Project Objectives for Transportation. Although as noted above, the Project requires amendments to the Circulation Element and to the MPAH, neither are mentioned as a Transportation Project Objective. Section 3.2.3 addresses the Project Objectives for Open Space. However, Section 3.2.3 fails to mention the changes in the wildlife corridors as part of the Open Space Project Objectives.

Section 3.3 recognizes that CEQA requires the City must analyze:

> "'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, and that is any of the following: (1) An…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.'"

DSSEIR, page 3-9 quoting CEQA Guidelines Section 15378. Unfortunately, as indicated above, the DSSEIR fails to analyze the entire Project. Section 3.3.1 is entitled "Previous Environmental Documentation" and summaries the previous 2003 Program EIR, the 2011 DSEIR, and the eight

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Addenda. All of these constitute pieces of the Great Park Project. The DSSEIR cannot simply analyze another piece of this Project.

Since its inception, CEQA has forbid "piecemeal" review and analysis of the significant environmental impacts of a project. Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 391, fn. 2. This prohibition stems in part from CEQA itself: Public Resources Code section 21002.1(d) requires that an environmental document "consider[] the effects, both individual and collective, of all activities involved in [the] project." Courts have recognized that:

> "A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal ... and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."

Sacramento Old City Assn. v. City Council (1991) 229 Cal.App.3d 1011, 1023 [280 Cal.Rptr. 478], original italics; Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182, 201. A16-13a cont'd.

Further, CEQA Guidelines Section 15165 provides that:

> "**Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the lead agency shall prepare a single program EIR for the ultimate project** as described in Section 15168 . . .."

Here, the DSSEIR does not analyze the full Project but only the differences between the 2012 Project and the 2011 Project. However, as indicated above and as recognized in Section 3.3.1, the Project is a chamaeleon: it is ever changing with the 2012 Project the latest iteration.

The DSSEIR attempts to do this by referring to the previous environmental documents as "[t]ogether, the 2003 OCGP EIR, the eight subsequent Addenda, and the 2011 SEIR are referred to as the '2011 Certified EIR.'" That is erroneous and misleading. The 2011 SEIR did not incorporate or analyze the entire Great Park Project. Rather,

> "[t]his DSEIR analyzes the environmental impacts of the Modified Project as compared to those of the Approved Project."

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2011 SDEIR, page 3-9. The "Approved Project" is:

> The Certified EIR and the 1,269 density bonus units granted by the City in 2008 pursuant to state law, are referred to in this DSEIR as the 'Approved Project.'"

2011 SDEIR, page 1-1. The 2011 SEIR compared its "Modified Project" to the "Approved Project." It did not incorporate the earlier Projects but rather "modified" those Projects.

The 2003 PEIR proposed the North Irvine Transportation Mitigation ("NITM") Program and in connection with that Project, the City adopted the NITM. In 2010, Addendum No. 7 provided an update to the NITM Program to determine whether the proposed improvement in the NITM Program were necessary. Addendum No. 7 determined that certain improvements could be removed from the Program. The DSSEIR proposes other changes but it does not propose removal of improvement from the Program.

A16-13a cont'd.

Section 3.3.2 attempts to describe the Project in detail. Among other things, the 2012 Project almost doubles the number of residential units. Section 3.3.2 states:

> "The 2012 Modified Project consists of 4,606 dwelling units (3,412 base units and 1,194 DB units). The 2012 Modified Project also includes **the option to convert up** to 535,000 square feet of non-residential Multi-Use to up to 889 base dwelling units and 311 DB units, granted pursuant to State law. These are in addition to the already approved 4,894 dwelling units."

DSSEIR, page 3-15 (Emphasis supplied). However, as indicated above, one of the Project objectives is to "[c]onvert existing non-residential intensity to residential uses. . . ." So, the Project then includes 4,606 dwelling units ("dus" or individually "du"), 889 dus, 311 dus, as well as the original Project of 4,894 dus. The total is 10,700 dus, more than double the original 2003 Project. The DSSEIR cannot provide the appropriate level of environmental review: the 2012 "Modified" Project more than doubles the number of dwelling units with substantial modifications to the NITM Program. The DSSEIR must be revised to address the full Project and analyze its impacts using the appropriate environmental baseline: the conditions on the ground today.

A16-13b

The Project also proposes to relocate key portions of the Approved Wildlife Corridors. However, Section 3.3.2 is very vague and ambiguous as to the nature of the relocated site, the current proposed uses and zoning for that site, and the size of that site. It appears that the purpose of this relocation is not to benefit the protected species that will use the corridors but to benefit the applicant and provide them more flexibility in their future plans. However, this flexibility creates uncertainty and may create significant environmental impacts regarding the ultimate use.

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Section 3.3.2 also discusses the General Plan Amendments and the Zone Code changes. First, although Section 3.3.2 considers the amendment to the MPAH, it states:

> "Amend General Plan Circulation Element, Figure B-1, and other General Plan Maps as necessary, to eliminate the extension of Rockfield Boulevard from the eastern project boundary to Marine Way once the Orange County Transportation Authority (OCTA) has approved this proposed amendment to the countywide Master Plan of Arterial Highways."

A16-15

DSSEIR, page 3-21. However, this is backwards. As indicated above and as required in OCTA's Guidance, the City must first amend its Circulation Element and only then will OCTA consider the City's application to amend the MPAH.

Also, the Project requires another Amendment to the Circulation Element regarding traffic Levels of Service ("LOS"). As indicated above, although earlier environmental documents took down the LOS for various intersection, the Project requires to expand those intersections which are subject to reduced levels of service. Figure 3-6 shows the areas for this expanded LOS reduction and graphically displays the severity of this Project feature: the area for reduced LOS lies in the heart of the Great Park Project. When the City reduces LOS at the heart of the Project, this reduction in LOS will have a ripple effect throughout the entire Project area and create traffic impediments throughout the roadway system.

A16-16

Probably more striking, though, is the General Plan Amendments for the number of residential units. Section 3.3.2 states:

> "Revise General Plan Table A-1 and associated footnotes to allow a total of 9,500 dwelling units in Combined PA 51 with an option to convert up to 535,000 square feet of non-residential Multi-Use to up to an additional 889 dwelling units (and 311 DB units) for a revised total of up to 10,700 dwelling units in Combined PA 51."

Id. However, as indicated above, one of the Project objectives was **the actual conversion** of the 535,000 square feet of non-residential Multi-Use to residential. Given that this is the Objective, the Project cannot conflict with this Project Objective: the Project must accomplish this Objective by actually making the conversion rather than simply allowing the applicant to have the option to convert. Moreover, rather than allowing the applicant to convert 535,000 square feet of non-residential uses and allowing conversion to residential, the DSSEIR should specify the conversion amount of 889 dwelling units (and 311 density bonus dus) and reduce the non-residential square footage by 535,000 square feet. Again, although this iteration of the Project expands the flexibility given to the applicant, and creates uncertainty and the potential for significant impacts regarding the ultimate use. The new Program EIR should provide specifics which will specify the use and eliminate this uncertainty.

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As for the Zone Code changes, as we commented above, removing land use regulations for any sites is unwise and creates land use impacts. Again, it provides flexibility to the applicant which creates uncertainty as to the ultimate use. This certainty undercuts the environmental analysis and may create significant land use impacts. For instance, Section 3.2.2 (Zoning Ordinance Amendments) includes:

> "• Modify the 8.1/8.1B Trails and Transit Oriented Development maximum site coverage standards (Section 3-37-39(G)) to permit unlimited site coverage outside setback areas within ½ mile of a train station or transportation center;
>
> • Modify the 8.1/8.1B Trails and Transit Oriented Development maximum site building height standards (Section 3-37-39(H)) to allow unlimited building height within ½ mile of a train station or transportation center and building heights of 90 feet for hotel/hospitality uses;"

A16-17b

DSSEIR, page 3-22. Here, the applicant gains flexibility which creates uncertainty in the ultimate use. This uncertainty may create significant impacts which the DSSEIR does not and cannot analyze. Although some relaxation of land use regulations may make sense within one-half mile of a train station, it makes no sense to eliminate regulations entirely.

Section 3.3.2 includes a discussion of the Project's design features ("PDFs" or singular "PDF"). PDF 4-1 states:

> "Like the 2011 Approved Project, the 2012 Modified Project increases the density of development on the Proposed Project Site. Doing so will tend to reduce VMT [vehicle miles traveled] on a local and regional basis. For the analyses in this DSSEIR, it was assumed that there would be only a 25% reduction in VMT, which is within the range observed in Southern California."

DSSEIR, page 3-32. However, the 2011 EIR made a similar assumption:

> "As a result, the Modified Project and Approved Projects could result in an over 30 percent reduction in vehicle miles traveled ("VMT"). However, according to the CAPCOA Manual, a limited number of case studies in Southern California described as compact infill show slightly lower levels of reductions. Therefore, to be conservative, it was assumed that there would be only a 25 percent reduction in VMT, which is within the range observed in Southern California."

A16-18

2011 SEIR, page 5.3-13. According to these EIRs, it is unclear whether these are additive, but given the language of both EIRs, it appears that the 2012 Project will reduce vehicle miles traveled by fifty (50%) percent over the 2003 Project! This is incredible, and requires more discussion and support other than this bald statement. Moreover, this cumulative reduction

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requires full discussion, because it allegedly reduces trips by one-half over the 2003 Project while at the same time doubling the number of residential units. **It does not seem possible that twice as many homes with twice as many people will result in half of the vehicle miles traveled.** A16-18 cont'd.

PDF 4-12 contains another surprising statement regarding the traffic analysis of the converted residential units which as indicated above is one of the Project Objectives:

> "The 2012 Modified Project's optional conversion of non-residential square footage to residential units, if implemented, **will be subject to a traffic analysis** to assess traffic impacts, if any, due to the specific changes in land use and will include a reduction in allowable Multi-Use intensity in terms of equivalent traffic generation (excluding DB units) based on AM peak, PM peak, and ADT. Conversions to other non-residential uses within the Multi-Use category, if implemented, will also be subject to a traffic analysis to assess traffic impacts, if any, and shall be reflected in terms of equivalent traffic generation based on AM peak, PM peak, and ADT."

A16-19

DSSEIR, page 3-34 (Emphasis supplied). CEQA requires the analysis of the entire Project and all Project features in the DSSEIR. PDF 4-12 seeks to delay this analysis until the conversion is actually implemented. Given that the conversion is actually a Project Objective which the Project will meet, then deferring analysis of this Project feature– the converted 1,200 dwelling units (889 dwelling units and 311 density bonus dus) and the trips these will generate must be analyzed **now** when the whole Project is considered. Although CEQA does not require a perfect EIR, it is sufficient for CEQA purposes if an "EIR evaluates the 'reasonable worst-case scenario' . . . [or otherwise] 'comprehensively, if not perfectly, analyze[s] the issue.'" Planning & Conservation League v. Castaic Lake Water Agency (2009) 180 Cal. App. 4th 210, 246. The DSSEIR is not perfect, but it does not even analyze the "worst case scenario" and is not "comprehensive." As indicated above, the City should prepare an entirely new Program EIR for the Project; the DSSEIR must be rejected.

In addition, the Project Description includes two options for the development of Main St. It is confused:

> "In addition, the 2012 Modified Project includes two options for the "Main Street" development along Trabuco Road east of "O" Street. Option 1, which was studied in the 2011 SEIR, includes Community Commercial and Multi-Use north of Trabuco Road with Residential south of Trabuco Road in District 1 South. Option 2, which is studied in this DSSEIR, will include Residential north of Trabuco Road with Community Commercial, Multi-Use, and Residential south of Trabuco Road in District 1 South. Option 1 was analyzed in the 2011 SEIR within the context of the other entitlements that were part of the 2011 SEIR Approved Project. This DSSEIR studies Option 1 in the context of the changes proposed as

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part of the 2012 Modified Project. Both Options will include a 2,600 student high school in District 5."

DSSEIR, page 3-16. However, as indicated above, it is unclear whether this brings in additional residential units over and above the 10,700 in the Project. The DSSEIR is not clear: Does Option 2 involve a conversion of non-residential square footage to dus? If so, then what is the conversion? If not, then does this increase the number of dus without any reduction in non-residential square footage? As discussed below, Section 5.12 which discusses traffic contains a clear statement of this Project feature and Section 3 should be revised to use that description of this feature. A16-20 cont'd.

Finally, Section 3.4.1 is entitled "Subsequent Discretionary and Ministerial Actions" and includes a list of various approvals from tract maps to real estate transfers for the relocation of the wildlife corridors. However, as indicated above, the earlier environmental documents cannot serve as the base for the DSSEIR; likewise, the DSSEIR cannot itself serve as a base for other approvals. A16-21

VI. Section 4: The Project Environmental Setting. This Is Erroneous and must Be Revised to Analyze the Project's Impacts on the Current Baseline, the Current Physical Condition of the Property.

Section 4.1, the Introduction to the Environmental Setting, begins poorly:

"The environmental setting provides a set of baseline physical conditions from which the City, as lead agency, will determine the significance of environmental impacts of the 2012 Modified Project. Because this is a Supplemental EIR, the baseline used for the analyses in this DSSEIR is the 2011 Approved Project, which includes the activities analyzed in the 2011 Certified EIR, which includes Addendum No. 8."

As indicated above, the 2011 Approved Project has not been built or implemented: it is just a plan. As the South Coast AQMD Court stated, the appropriate environmental baseline is A16-22

"'existing physical conditions in the affected area' (*Environmental Planning & Information Council v. County of El Dorado*, *supra*, 131 Cal. App. 3d at p. 354), that is, the '"real conditions on the ground"' (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, *supra*, 87 Cal.App.4th at p. 121; see *City of Carmel-by-the-Sea v. Board of Supervisors*, *supra*, 183 Cal. App. 3d at p. 246), **rather than the level of development or activity that could or should have been present according to a plan or regulation**."

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Id. at 320-21 (Emphasis supplied). There is no basis in law for the DSSEIR to adopt the 2011 Approved Project as the environmental baseline: It is not the "real conditions on the ground;" it is "the level of development or activity that could or should have been present according to a plan or regulation." Id.

Without the appropriate baseline– the conditions on the ground today-- Section 4 is wholly inadequate and must be revised. Indeed, Section 4.4 entitled "Environmental Resources and Infrastructure" shows the uselessness of this analysis: for each required environmental category for analysis, Section 4.4 is generic: Section 4.4 says a subsection in Section 5 address each of categories for analysis of the Project as compared to the 2011 Approved Project. As discussed below, this is inadequate and fails to provide a complete and comprehensive analysis of the Project's environmental impacts. A16-22 cont'd.

VII. Section 5: The Impacts Analysis. This Entire Section Fails Due to the DSSEIR's Improper Baseline and Truncated Project Description.

As discussed below, Section 5's analysis of each and every impact section is inadequate. Moreover, even if some impacts are less than significant, the combined effect of all deficiencies undercuts the entirety of Section 5's analysis. That is, even if the DSSEIR is correct and each impact analysis is ultimately less than significant, the cumulative impacts of all of these less than significant impacts is likely significant and requires further analysis. A16-23

A. Section 5.1: Aesthetic Impacts. Although Not Analyzed in Section 5.1, the Project Will Have Aesthetic Impacts Which Require Mitigation.

Although Section 5.1 attempts to address the Aesthetic Impacts of Project, it suffers from the DSSEIR's compromised view of the baseline: it is not the 2011 Approved Project. That is not on the ground. However, Section 5.1 recognizes what is on the ground:

> "Parts of the Proposed Project Site are vacant land containing no light sources. Most of the developed area onsite is vacant and likewise does not contain light sources. There are a few buildings onsite with existing uses that have outdoor nighttime parking areas and security lighting. Additionally, nighttime light sources associated with the Orange County Great Park Western Sector Development (Phase 1) also exist." A16-24a

DSSEIR, page 5.1-2. That is right: the land is vacant with no light sources. Regarding the Western Sector, although planned for completion this year, the Great Park website reports:

> "The project is expected to be complete in 2012, with park features being opened as they are completed. The project builds on the current park space, which will

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> continue to be open and active with events and programming throughout construction."

http://www.ocgp.org/news/construction/ . Whatever light sources this park feature has, as a park, they must be few. A16-24a cont'd.

Section 5.1 discusses the thresholds of significance. Impact 5.1-1 addresses 2012 Project's impacts on the visual character of the Project area. Interestingly, Impact 5.1-1 notes:

> "Although the 2012 Modified Project **would convert** existing nonresidential entitlement to residential uses, the bulk and massing of the proposed structures would be similar to those considered in the 2011 Certified EIR. In addition, the proposed residential uses would likely provide more opportunities for landscaping and parkland."

A16-24b

DSSEIR, page 5.1-5. As indicated above, the Project Description states that the Project would allow the applicant the option to convert residential units from non-residential square footage allowed under the 2011 Project. As indicated above, that's a problem: either the Project will convert residential units from non-residential space or it won't. The DSSEIR attempts to have it both ways: it cannot. As indicate above, the Project Description must be revised to include the actual conversion of non-residential square footage into residential units. That is the environmental analysis: the Project Description must correspond.

Further, the analysis must be complete and comprehensive; it cannot be simply conjecture. However, the DSSEIR fails to pass this minimal requirement in its analysis of the impacts on Aesthetics. It states:

A16-24c

> "Therefore, the aesthetic impacts of the 2012 Modified Project's proposed conversion of non-residential uses to residential uses, as compared to the 2011 Approved Project, **are not expected to be significant**, and aesthetic impacts may improve with implementation of the proposed conversion.

Id. Expectations are irrelevant here: the DSSEIR must analyze the aesthetic impact of the Project. If it cannot do this, then the problem is that the Project Description is not precise enough for the analysis. Hence, the Project Description and the analysis of aesthetic impacts must be revised.

A16-24d

Really, though, the DSSEIR itself must be rejected, and the City should prepare a new Program EIR to analyze the entire Project: the 2012 Project, and all of the earlier Projects and Project features. These earlier Project and Project features are not part of the baseline; they are part of the Project.

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Further, the DSSEIR's ignoring the Project Description's residential conversion option stands in stark contrast to the Main St. Development which the DSSEIR recognizes that there is an option:

> "The 2012 Modified Project includes two options for the "Main Street" development along Trabuco Road east of "O" Street. Option 1 would involve Community Commercial and Multi-Use north of Trabuco Road with Residential south of Trabuco in District 1 South. Option 2 would involve Residential uses north of Trabuco Road with Community Commercial, Multi-Use, and Residential uses south of Trabuco Road in District 1 South."

Id. Unfortunately, as indicated above, this discussion is unclear whether or not this is a conversion or simply replacement.

At the very least, the DSSEIR must be revised so that it is consistent: the residential conversion must be recognized in all sections of the DSSEIR. But the best answer is to circulate a new Program EIR for the full Project including the 2012 Project for public review and comment.

A16-24d cont'd.

Impact 5.2-1 concerns the Project's light and glare impacts. For the conversion of non-residential square footage to residential, tt concludes that, because the 2011 Project included non-residential which uses require nighttime lighting, the 2012 Project will have a lesser impact because residential uses do not use light much at night.

Or again, with respect to the Main St. Development Options, because the Project introduces residential in place of non-residential uses: same result–lesser impact than the 2011 Project.

Also, with respect to the development of additional lands as a result of the relocation of the wildlife corridor, again, no impact because the surrounding land uses have significant light and glare sources.

These analyses all reveal the problem with the 2011 Project baseline. As indicated above, the true baseline is the condition on the ground today. The DSSEIR repeatedly states that the condition on the ground today is vacant land. If the DSSEIR had compared the aesthetic impacts of the Project with the condition on the ground, i.e. vacant lands, the Project would likely have significant impacts on Aesthetics which would require mitigation.

As indicated above, the DSSEIR must be rejected: a new Program EIR must be prepared for the entire Project.

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B. Section 5.2: Agriculture. Although Not Analyzed in Section 5.2, the Project Will Have Significant Impacts on Agriculture which Require Mitigation.

Section 5.2 addresses the Project's impacts on Agriculture. The 2003 EIR recognized that the 2003 would have significant and unmitigated impacts on Agriculture:

> "Ag 1. The project Base Plan will convert 574 acres of Prime Farmland, 63 acres of Unique Farmland, and 46 acres of Farmland of Statewide Importance to non-agricultural use. The Overlay Plan will convert 651 acres of Prime Farmland, 63 acres of Unique Farmland and 88 acres of Farmland of Statewide Importance to non-agricultural uses."
>
> "Ag 2. The project will involve changes in the existing environment, which, due to their location or nature, could result in conversion of existing farmland to non-agricultural use."

2003 EIR, page 5.8-12. Since 2003, the Project has changed significantly but has not added new agricultural lands. Rather, as recognized in the DSSEIR, the 2012 Project will affect more agricultural lands by the relocation of the wildlife corridor. However, the Project will also impact other agricultural lands which impacts are not analyzed in the DSSEIR.

A16-25a

As to the relocation of the wildlife corridor, Impact 5.2-1 (also known as Ag Impact 1) notes:

> "Development pursuant to the 2012 modified project would convert 13 acres of prime farmland to zoning designation 1.4 preservation. [Impact Ag-1]"

DSSEIR, 5.2-11. However, the DSSEIR fails to analyze the impacts correctly. First, as noted above, the DSSEIR uses the wrong baseline: the 2011 Project. However, if the DSSEIR uses the appropriate baseline the 2012 Project will create significant impacts on agriculture which would require mitigation.

The Site Assessment Score fails because of this inappropriate baseline. Instead of recognizing that the full Project will affect hundreds of acres of agricultural lands, the Site Assessment notes that, because the loss as result of the relocation of the wildlife corridor, the Project will lose only 13 acres of land. Thus, the Site Assessment determines that the loss is 0. However, if the loss was correctly recognized as hundreds of acres, the Site Assessment would be 100.

Further, Impact 5.2-2 concerns whether the Project will conflict with the zoning on the site. The site on which the 2012 Project seeks to relocate the wildlife corridor is currently zoned 1.1 Exclusive Agriculture. Hence, the Project will conflict with the zoning on the site. However,

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the Project seeks to cure this impact by simply changing the zoning. Because of this, the DSSEIR finds that the Project will have no significant impact. However, because the Project will require a zoning change, it will create a significant impact on agriculture.

Section 5.2 also attempts to analyze the cumulative impacts of the Project on Agriculture. But the analysis is incomplete. It focuses solely on the 2012 Project loss: thirteen acres. However, the cumulative loss as a result of the hundreds of acres of agricultural losses as a result of the full Project is significant without reference to other losses in Orange County. A16-25b cont'd.

Finally, Impact AG-5 concerns the other Project changes which could impact agricultrual lands:

> "Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?"

Section 5.2 does not contain a full graphic or map which shows the Project in relation to agricultural lands. However, the 2003 EIR contains Figure 5.8-1 which shows Agricultural Resources in relation to the Project. Note that agricultural lands are adjacent to the Irvine Transportation Center. The 2012 Project includes elimination of the height restrictions of buildings within one-half mile of a train station. Tall buildings adjacent to agricultural lands may create significant environmental impacts on adjacent agricultural lands which the DSSEIR has not analyzed. A16-25c

As indicated above, the Project will create significant impacts on agricultural resources which will require mitigation. Further, the Project will create significant impacts on agricultural resources when the analysis includes the appropriate environmental baseline: what is on the ground today. The DSSEIR must be rejected: the City should prepare a new Program EIR for the full Project.

C. Section 5.3: Air Quality. It Is Incomplete; the Project Will Have Additional Significant Impacts on Air Quality Which Require Mitigation.

Section 5.3 addresses the Project's impacts on air quality. Table 5.3-2 recognizes that, for listed pollutants, the South Coast Air Basin has numerous levels of non-attainment, serious non-attainment, and extreme non-attainment for various pollutants including carbon monoxide, sulfur dioxide, nitrogen dioxide, and others. A16-26a

Again, Section 5.3 repeats the errors throughout the DSSEIR regarding the improper baseline. The correct baseline is not the 2011 Project but the conditions on the ground which is mostly vacant land. By comparison, the Project will have significant air quality impacts.

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Further, as indicated above, Section 5.3 argues that the Project will reduce the VMT's because of a more dense development. PDF 4-1 states:

> "Like the 2011 Approved Project, the 2012 Modified Project increases the density of development on the Proposed Project Site. Doing so will tend to reduce VMT on a local and regional basis. For the purpose of this analysis, it was assumed that there would be only a 25% reduction in VMT, which is within the range observed in Southern California."

However, this assumption is not correct. First, in Urban Growth in California, July 2012, James Thorne, Jackelyn Bjorkman, Nathaniel Roth of the University of California, Davis, a white paper from the California Energy Commission's California Climate Change Center, noted that this increased density component worked best with infill projects, not projects to develop lands removed from the main city center. Rather than claiming a credit for density, the Project which is remote from many urban centers should be charged an impact. The Project site is remote from much of Irvine including the Irvine Business Complex, erroneously referred to the DSSEIR as the Irvine Business Center, DSSEIR, page 5.3-18. The Irvine Business Complex is an area where the City is already developing additional residential and which is the type of Project that Urban Growth in California would recommend. A16-26b

Second, although the Project increases residential uses by almost fifty percent, it does this in part by the conversion of 535,000 square feet of non-residential uses to 889 dwelling units (and 311 density bonus dus). This conversion could increase the VMTs because of the loss of the 535,000 square feet of non-residential uses and the addition of another 1,200 dus, which are composed of 889 dus and 311 density bonus dus .

Impact 5.4 concerns the operational impacts of the Project on sensitive receptors in the area. It concludes that the Project will have no greater impacts than the 2011 Project. However, the analysis is truncated: it fails to consider the operation of the Project in the vicinity of the Interstate 5/405 merge or separation. This is one of the most heavily traveled roadways in the nation. Since the Project will lower the LOS at area intersections, this will have an impact on air quality in the area. Combine this impact with the operation of the I-5/405 merge or separation, the Project impact is significant. A16-26c

Section 5.3.6 discusses mitigation measures for air quality impacts. The operational mitigation measures AQ-3 through AQ-5 simply impermissibly defer the mitigation. As indicated above, the mitigation analysis cannot be deferred to some future date but must be specific and concrete. AQ-3 defers mitigation improperly by the following: A16-26d

> "Prior to the issuance of building permits for any future development, the applicant shall submit, and Director of Community Development shall have approved, an operation emissions mitigation plan."

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DSSEIR, page 5.3-28. This plan should be developed now, if it is truly for mitigation of Project impacts. AQ-4 and AQ-5 contain similar hopeful language.

AQ-4 states:

> Prior to the issuance of building permits, future sales information on available housing and employment opportunities within the project area shall be provided to employees and residents of the project area, so **as to encourage employees to live within the residential developments planned on-site and future residents to find employment nearby.**

DSSEIR, page 5.3-29. If only mitigation measures were this easy: "encourage employees to live" near their work. This does not constitute mitigation for air quality impact.

AQ-5 states:

> "Prior to the issuance of building permits, the applicant shall demonstrate to the satisfaction of the Director of Community Development that future employment generating nonresidential development shall include measures to reduce vehicle trips including: the promotion of carpool incentives and alternative work schedules, easy access to public transit systems, trail linkages between uses, low emissions vehicles fleets, and the provision of on-site facilities such as banking and food courts, and bicycle parking facilities, and other transportation demand management measures, as deemed appropriate."

A16-26d

Id. As noted above, mitigation is not this easy: the developer cannot alone develop incentives for carpools and alternative work schedules.

The DSSEIR must be rejected in its entirety. The City must prepare a new Program EIR which will describe the full Project, use the appropriate environmental baseline to analyze the Project impacts, and address the issues here regarding air quality impacts.

D. Section 5.4: Greenhouse Gases. It Suffers from Similar Problems as Section 5.3; the Project Will Have Additional Significant Impacts on GHG Which Require Mitigation.

Section 5.4 addresses the Project's impacts on Greenhouse Gas ("GHG") Emissions. Section 5.4 suffers from the same root problem that occurs throughout the DSSEIR: it uses the wrong baseline. The appropriate environmental baseline is the conditions on the ground today. Compared to the conditions on the ground today which is vacant land which emits few GHG, the Project's GHG emissions would be large and would constitute a significant and unmitigated impact.

A16-27a

Also, Section 5.4 again seeks to gain credit for the density by claiming a 25% reduction in VMTs. This assumption as before lacks support and credence.

A16-27b

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Part of the problem in determining GHG emissions impacts is that the standards are evolving. The DSSEIR notes that the South Coast Air Quality Management District ("SCAQMD") has not adopted significance thresholds for residential and commercial developments. The DSSEIR notes that SCAQMD has several draft thresholds. In the Draft Guidance Document–Interim Greenhouse Gas ("GHG") Significance Threshold, October 2008 SCAQMD recommended a bifurcated approach for significance thresholds: industrial sources had one threshold; residential/commercial another threshold. For residential/commercial, SCAQMD recommended:

> "Assuming similar emission characteristics also exist for the residential and commercial sector (i.e., large residential or commercial projects, although fewer in numbers, contribute substantially more to the total emissions), it is estimated that at a threshold of approximately 3,000 MTCO2eq/yr emissions (10,000 x (9 percent / 30 percent)) would capture 90 percent of the GHG emissions from new residential or commercial projects."

A16-27c

Id. at 3-12. However, as shown on Table 5.4-3, the Project will generate 4.41 MTCO2eq/yr emissions without the residential conversion and 4.3 MTCO2eq/yr emissions with the conversion. Regardless of the option, these values exceed those recommended by SCAQMD.

Given this impact, the DSSEIR should be revised to recognize and mitigate this significant impact on GHG. Moreover, the DSSEIR must be revised to employ the appropriate environmental baseline and analyze the Project's impacts using the correct baseline. Finally, the DSSEIR should be rejected, and the City should prepare a new Program EIR for the entire Project.

E. Section 5.5: Hazards and Hazardous Materials. It Is Incomplete and Fails to Provide a Complete Analysis of the Project's Impacts on Hazards and Hazardous Materials.

Section 5.5 analyzes the Project's impacts on hazards and hazardous materials. This is treacherous ground for the DSSEIR, because the Project Site is rife with hazards and hazardous materials. The Project Site, a former Marine Base, had loads of hazardous materials and suffers from extensive continuing contamination.

A16-28a

As indicated above, the DSSEIR fails to describe the entire Project and the employ the appropriate environmental baseline in analyzing the Project's impacts on the existing environment. Section 5.5 continues to employ these problematic positions.

In addition, Section 5.5 improperly regards various impacts as insignificant. These include:

> "H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

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"H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

"H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

"H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

"H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

"H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan."

A16-28b cont'd.

DSSEIR, page 5.5-13 through -14. Given the extensive contamination of the Project Site, the DSSEIR should be revised to analyze each of these.

For instance, the Project includes the introduction of 10,700 dus with each with sensitive receptors; the Project Site is continuing to undergo remediation of the extensive contamination. Although the Project may have project design features or mitigation measures to ensure that the residents in these 10,700 dwelling units will not be affected, the Project will expose these sensitive receptors to these hazards during remediation and the potential for upset and accidents involving such hazardous substances.

Or again, the Project will bring a new school into the Project area. Given the extensive contamination of the Project Site, it is likely that there is the potential for emission of hazardous materials within 1/4 mile of this school site.

In addition, although the airstrip on the Project site has been decomissioned, the DSSEIR must discuss this fact and how this affects the potential for the Project to create a safety hazard.

Section 5.4 only analyzes:

"H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

"H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands."

A16-28c

DSSEIR, pages 5.5-13 through -14.

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The discussion of the H-4 impact is woefully inadequate. It includes a whole host of existing plans, programs and policies ("PPPs"), project design features and mitigation measures which simply defer the analysis of the Project's impacts on hazards and hazardous materials. For instance, Section 5.5 begins with a discussion of the hazards and hazardous materials at IRP Site 24. It is located in zoning districts categorized as 6.1 Institutional (current), 1.9 Great Park (current), and 8.1 TTOD (proposed). IRP Site 24 has significant contamination from volatile organic compounds ("VOCs") including soil and groundwater contamination, and is undergoing remediation. Section 5.5 concludes:

> "The DON [the Department of Navy] shall annually provide copies of permit applications and permits that it has received during the previous year, beginning one year from the issuance of the OU1 and OU2A ROD, and ending when remediation has been completed. Implementation of the institutional controls described above will reduce any potential exposures from VOC Sites 18 and 24 such that implementation of the 2012 Modified Project would have a less than significant impact."

A16-28c cont'd.

DSSEIR, page 5.5-19. Some of these institutional controls include land use restrictions so that, for instance, no residential uses would occur on the site. Given that the DSSEIR recognizes that it will take years to clean up this contamination, the DSSEIR must also recognize that the Project has an impact on hazards and hazardous materials by potentially exposing sensitive receptors to this contamination which is being remediated.

The analysis for the contamination sites is very similar. Few have been closed and several are awaiting closure. The DSSEIR must recognize these a potentially significant impacts as a result of the Project and may expose residents to such contamination.

As to Impact H-8, the potential to expose residents to wildland fires, Section 5.5 fails to recognize that a portion of the Project Site is within the Orange County Fire Authority's newly revised Very High Fire Hazard Zone Map ("VHFHZ Map"). See http://www.ocfa.org/_uploads/pdf/FireHazardServerityMaps/Irvine.pdf . Section 5.5 states:

> "Relocated Wildlife Corridor Feature and residential areas in the northeastern portion of Combined PA 51 will be exposed to the highest level of fire risk from wildfires because **these areas are adjacent** to the NCCP Reserve which is currently defined as having high risk for wildland fires under the updated Fire Hazard Map."

A16-28d

DSSEIR, page 5.5-22. Rather, the entirety of the northwesterly portion of the Project Site is within the VHFHZ. This requires extensive mitigation to ensure that the Project will not expose residents to wildland fires.

As indicated above, the DSSEIR requires extensive revision in connection with its analysis of hazards and hazardous materials. As we have stated earlier, the best course is to prepare a new Program EIR for the full Project. At a minimum, the DSSEIR must fully analyze

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the Project's impacts on hazards, completely analyze all impacts and propose necessary mitigation measures. A16-28d cont'd.

F. Section 5.6: Hydrology and Water Quality. It Is Inadequate Because It Fails to Address All Project Impacts and Provide Necessary Mitigation.

Section 5.6 addresses separately the Project's impacts on hydrology and water quality. First, and again, we offer our programmatic objections: the Project Description does not describe the full Project; and the DSSEIR does not use the appropriate environmental baseline to assess impacts which baseline is the conditions on the ground today. A16-29a

Section 5.6 begins with hydrology. Although it seeks to limit the inquiry by classifying several impact and states that HYD-2 is insignificant, it never defines HYD-2. The public has no idea what is being declared insignificant and cannot assess the correctness of this classification. A16-29b

Under Impact 5.6.1-1 regarding increase or redirect in surface water flows which it attributes to HDY-4 and HDY-5, Section 5.6 finds that the Project will have a less than significant impact. It offers no analysis and no discussion of the impact.

However, the discussion of Impact 5.6.1-2 affects the analysis of Impact 5.6-1. Impact 5.6-2 states that the Project will not locate structures within the 100 year flood hazard area. However, it continues:

> Current City development standards and the Zoning Code prohibit the construction of any structure within a 100-year Flood Hazard Area. Per the Zoning Code and Mitigation Measure H/WQ-4, which is incorporated into both the 2011 Approved Project and the 2012 Modified Project, a Letter of Map Revision ("LOMR") must be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the **flood control improvements required to contain or redirect the 100 year flood hazard**.

A16-29c

DSSEIR, page 5.6-11. Hence, under the current maps for the flood hazard areas, the Project proposes to place structures within that flood area. In order to address this impact, the Project includes "flood control improvements" which will redirect surface waters and avoid the flooding of such structures. The Project then includes a flood map revision or the "LOMR." The DSSEIR cannot have it both ways: the flows are not redirected or increased v. the need for a flood map revision. Since the Project will redirect and likely increase flood flows because of this redirection, the analysis of HYD-4 must be expanded to discuss this redirection and how it will not increase the flows.

As to Water Quality, Section 5.6 is equally inadequate. The DSSEIR does not really recognize that the Project Site watershed and its terminus is one of the most compromised water A16-29d

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systems in the country. San Diego Creek and its destinations, Upper and Lower Newport Bay, suffer from significant pollutants from upstream including the Project Site. A16-29d cont'd.

Impact 5.6.2-1 addresses surface water flows. As indicated above, the discussion of Impact 5.6-2 indicates that the Project will include flood control improvements which will redirect surface flows. The discussion of Impact 5.6-1 does not address these at all. A16-29e

As for Impact 5.6.2-2, the water quality analysis, it concludes that the Project will not create a significant water quality impact. However, it contains no discussion of recent action by the Santa Ana Regional Water Quality Control Board ("Santa Ana RWQCB") regarding several materials including selenium. The Santa Ana RWQCB has issued orders regarding many contaminants including selenium for upstream dischargers such as the Project. The DSSEIR must discuss and analyze these issues to determine what action and mitigation the Project requires. Moreover, it does not discuss the farming and fertilizer use on the Project Site which will cause discharges upon grading and rainfall. A16-29f

As throughout, the DSSEIR is inadequate as to hydrology and water quality: the Project will redirect surface flows but the DSSEIR contains no discussion of the flood control improvements which must be part of the Project. Second, the DSSEIR contain little discussion of the water quality impacts of the Project both during construction and during operations. Finally, although the Irvine Ranch Water District has developed an extensive and effective Natural Treatment System in the watershed, the DSSEIR contain no discussion of this system and does not seek to participate in that system. This failing in and of itself may create significant water quality impact by dispersing contaminants into many different systems and basins. A16-29g

As indicated above, the DSSEIR requires extensive revision in connection with its analysis of hydrology and water quality. As we have stated earlier, the best course is to prepare a new Program EIR for the full Project. At a minimum, the DSSEIR must fully analyze the Project's impacts on hydrology and water quality, completely analyze all impacts and propose necessary mitigation measures.

G. Section 5.7: Land Use Impacts. It Is Incomplete and Inadequate.

Section 5.7 addresses the land use impacts of the Project. Given that the Project includes General Plan Amendments, Zone Changes, and relocation of the Wildlife Corridor, the public would expect a full blown analysis of all issues. Unfortunately, the DSSEIR again disappoints.

Section 5.7 addresses the impacts analysis on land use. It notes that: A16-30a

"[T]he City has determined that a project would normally have a significant effect on the environment if the project would:

"LU-1 Physically divide an established community.

"LU-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general

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plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

"LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan."

DSSEIR, page 5.7-7. Because the Project is at former Marine Station around which development occurred, it could divide an established community. Further, because the Project site is adjacent to open space and wildlands, and seeks to relocate a wildlife corridor, the Project could conflict with a habitat conservation plan. The DSSEIR answers both of these issues in the negative and regards any such impacts as insignificant.

The DSSEIR is wrong. The Project will divide an established habitat community and will introduce housing and development in an area which has been largely undeveloped. Further, the Project will conflict with a habitat conservation plan: it requires relocation of an established wildlife corridor.

Section 5.7 discusses various regulatory plans including the City's General Plan, its Zoning Code, and other advisory plans such as the Southern California Association of Government's Regional Comprehensive Plan and its Regional Transportation Plan. Regarding the Zoning Code, it notes that much of the Project will be zoned "8.1 Trails and Transit Oriented Development." It states that: A16-30a cont'd.

"This land use category allows for a mix of residential, commercial, recreational, and education uses that support the multi-use environment of the Orange County Great Park development."

DSSEIR, page 5.7-5. However, as indicated above, this new classification creates uncertainty of the ultimate use and, because of this uncertainty, it may create a significant environmental impact.* Virtually everything is allowed under this classification, but nothing seems to be required of the applicant by this regulation. This classification must be revised to limit land uses and provide the City with some measure of expectation as to what development will occur.

As to the analysis of LU-2, Impact 5.7-1 attempts to address the issue. Impact 5.7-1 concludes:

"Implementation of the 2012 Modified Project Would Not Be In Conflict with an Applicable Adopted Land Use Plan, Policy, or Regulation. [Impact Lu-2]."

DSSEIR, page 5.7-8.

However, the Project includes several General Plan Amendments and Zone Code changes. Section 5.7 recognizes that the Project will have land use conflicts due to these amendments but maintains that these changes are consistent with the General Plan and with the City's land use policies and the policies upon which the Zoning Code was developed. Section 5.7's detailed response is in the form of several tables: Table 5.7-1 concerns General Plan

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Consistency; 5.7-2 concerns consistency with SCAG's Regional Comprehensive Plan; Table 5.7-3 consistency with SCAG's Regional Transportation Plan; Table 5.7-4 consistency with the Compass Blueprint 2% Strategy Area Principles; and Table 5.7-5 is consistency with the Orange County's Sustainability Communities Strategy.

Because these latter (Tables 5.7-2 through 5.7-5) are not land use regulations but are advisory programs to address sustainability and greenhouse gas impacts, we will not discuss them further. However, we note that, at their core, these programs encourage more density, more compact development, and more people living more closely together. Because these are not regulatory programs, it is unclear how they figure into the CEQA consistency analysis. What is clear is that these advisory programs support Project's substantial increase in dwelling units: more density is better for these programs. However, from a CEQA perspective, this compliance is irrelevant. A16-30a cont'd.

As for the Project's consistency with the City's General Plan, there are problems. For instance, it is unclear that the Project advances General Plan Objective A-1: "City Identity – Preserve and strengthen Irvine's identity as a diverse and innovative community." The Project includes an amorphous zoning designation 8.1 Trails and Transit Oriented Development which allows virtually any kind of use. It does not create entry points, edges, or landmarks as required by Policy (a) to Objective A-1. Further, Project does not use building masses to create a sense of unity: the elimination of height and site coverage near transit stations does the opposite: it creates building masses which interfere with unity. Policy (g) to Objective A-1 states that one policy goal is to:

> "Distinguish individual PAs in character and physical appearance by considering the following characteristics during design and development (p. A-10):
>
> "• Physical and visual separation
>
> "• Architectural style
>
> "• PA edge."

A16-30b

However, the Project includes the merger of two large Planning Areas into one. This will conflict with this Policy. Indeed, it is unclear that the Project will advance this policy even by comparison to surrounding jurisdictions. For instance, Section 5.7's analysis of the consistency with Objective A-4: Balanced Land Uses states:

> "The 2012 Modified Project is a part of the reuse of the former MCAS El Toro site, which would redevelop a large property that was previously developed and used for military operations. **The 2012 Modified Project is located in and adjacent to existing urban areas, allowing for optimal use of existing public services and facilities, and orderly expansion of services and facilities**. The proximity and available capacity of municipal services minimizes the cost of extending infrastructure into the Proposed Project Site. The 2012 Modified

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> Project allows for a mix of uses located within in close proximity of each other, thereby allowing residents to walk or use alternative transportation methods to access jobs, services, and public services and facilities. The proposed land use pattern would reduce the impacts on infrastructure and save costs to local governments."

DSSEIR, page 5.7-14. Rather than creating edges and distinguishing Planning Areas, the Project will make the combined Planning Area 51 an amorphous area which will bleed into other areas and other cities.

Further, the Project conflicts with Objective A-2: "Economic Development: Promote viable commercial centers, successful manufacturing areas, and dynamic employment centers." The 2012 Project does not allow industrial and manufacturing uses within the newly combined Planning Area 51. The Project is not consistent with Objective A-2.

The Project also conflicts with Objective A-4: "Land Use Balances: Manage growth to ensure balanced residential and nonresidential development throughout the City." However, the Project does the opposite: it almost doubles housing at the expense of commercial development. The Project is not a balanced project: it is a residential project. It is unclear that the 2012 Project with its substantial increase in residential uses is consistent with the City's entire General Plan. A16-30b cont'd.

These are just a few of the inconsistencies. Others are patent: For instance, the proposed amendments to the Circulation Element to reduce the LOS at various intersection to LOS "E" and to remove roadways from the MPAH is not consistent with the City's Circulation Element and its Objectives B-1 and B-2 concerning a balanced roadway design and a consistent Level of Service ("LOS").

Section 5.7 of the DSSEIR is inadequate and does not properly or fully analyze the Project's impacts on land use. Indeed, the Project seems inconsistent with many General Plan Objectives and Policies, and with the spirit and the letter of the Zoning Code. The DSSEIR must be rejected in its entirety including Section 5.7. The City should prepare a new Program EIR for the Project.

H. Section 5.8: Noise. It Incorrectly Analyzes the Project's Noise Impacts.

Section 5.8 attempts to analyze the Project's impacts on noise. The City has incorporated Appendix G of the CEQA Guidelines regarding noise impacts. These include:

"N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. A16-31a

"N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

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"N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

"N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

"N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

"N-6 For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels."

A16-31a cont'd.

Section 5.8 finds that the Project will have less than significant impacts on N-2, N-5 and N-6. However, as argued above, given that the Project Site is a former military base with an airstrip, Section 5.8 must discuss these issues and substantiate that the Project will not create these impacts.

Among the PPPs which Section 5.8 identifies as applying to and helping mitigate noise impacts, PPP 8-2 provides:

"Prior to the issuance of building permits for each structure or tenant improvement, other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development."

Although styled an existing plan, program or policy, PPP 8-2 is really a mitigation measure to ensure that the Project will not have noise impacts. As noted above, this improperly defers the necessary analysis until after Project approval. This should be revised to incorporate this study into Section 5.8.

As for those impacts analyzed in Section 5.8, Impact 5.8-1 provides:

"As Compared to the 2011 Approved Project, the 2012 Modified Project Would Not Substantially Elevate Traffic Noise Levels above Local Noise Standards at Noise-sensitive Receptors Proximate to the Proposed Project Site. [Impacts N-1 and N-3]"

A16-31b

DSSEIR, page 5.8-36. That is, as to Impact N-1 regarding exposing sensitive receptors to noise (N-1) and a substantial permanent increase in ambient noise [N-3], the Project will not have a significant impact on noise **as compared to the 2011 Approved Project**.

Again, this raises the two program deficiencies of the DSSEIR: it fails to describe and analyze the entire Project– the 2003 Project together with the 8 Addenda and the 2011 Project; and it fails to use the appropriate environmental baseline which is not the 2011 Project but rather the conditions on the ground today which is largely vacant land. Regarding the baseline, Table

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5.8-9 shows that the Project creates increases in noise over the 2011 Project for Option 1 (without residential uses north of Trabuco Road) at 104 roadway segments out of 395 segments and for Option 2 (with the residential dus north of Trabuco Road) at 108 roadway segments out of 395 segments. But this comparison shows the problems: if the DSSEIR compared the noise increases at these 395 roadway segments with the conditions on the ground today, the DSSEIR would find that the Project had significant noise impacts.

Section 5.8 concludes:

> Table 5.8-11 presents a summary of the unmitigated off-site traffic-related exterior noise impacts for the 395 study area roadway segments analyzed. For both the 2011 Approved Project and the 2012 Modified Project Options 1 and 2, a total of 10 segments are expected to experience an unmitigated exterior noise level that exceeds 75 dBA CNEL at a distance of 100 feet from centerline. The unmitigated 70 dBA CNEL exterior noise level is expected to be exceeded on a total of 135 segments for the 2011 Approved Project, on 137 segments for the 2012 Modified Project Option 1, and on 137 segments for the 2012 Modified Project Option 2 within the study area. The unmitigated 65 dBA CNEL exterior noise level is expected to be exceeded on 321 segments for the 2011 Approved Project, and on 322 segments for the 2012 Modified Project for both Option 1 and Option 2.

A16-31b cont'd.

DSSEIR, page 5.8-68. Even these increases seem significant, but, if the DSSEIR uses the appropriate baseline, the Project will create substantial and significant noise impacts.

As indicated throughout, the DSSEIR must be rejected: the City should prepare a new Program EIR which correctly defines the Project Description and which uses the appropriate environmental baseline to analyze the Project's noise impacts.

A16-31c

I. Section 5.9: Population and Housing. This Section Fails to Understand the Significance Threshold and Incorrectly Analyzes the Project's Impacts on Population and Housing.

Section 5.9 addresses the Project's impacts on Population and Housing. The CEQA thresholds are:

"P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

"P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

"P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere."

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DSSEIR, page 5.9-6 through -7. Because the Project Site is vacant, it does not displace either houses or people. DSSEIR, page 5.9-7.

However, the Project will "[i]nduce substantial population growth in an areas, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure." Id. However, the DSSEIR incorrectly assesses this impact: it turns this inducing of substantial population growth in the Project Site into a benefit. It is not a benefit, and the Project will have a significant impact on housing and population by inducing **26,679** new residents, see Table 5.9-8, to an area which currently has no residents and no houses, see DSSEIR, page 5.9-8.

The DSSEIR notes that the City currently has a jobs/housing imbalance. That is, the City is jobs rich and lacks housing for these workers. According to the DSSEIR, the Project will assist the City in addressing this imbalance. However, that does not eliminate the impacts on population and housing. A16-32 cont'd.

However, the DSSEIR states that the increase in population and housing as a result of the Project is insignificant because it only represents a 32 percent increase under the non-conversion option) and 36 percent increase under the residential conversion option. However, the DSSEIR notes that the growth for the entire City at General Plan Buildout will be "287,419, an increase of 75,044 over the 2010 Census population." DSSEIR, page 5.9-10. However, this increase is only 26 percent over the 2010 Census population. Because the Project adds an additional 6 to 10 percent increase in housing and population, this is a significant impact on population and housing.

This impact is compounded when the DSSEIR correctly describes the true Project and uses the appropriate environmental baseline. The DSSEIR recognizes that the Project Site is an abandoned military base. The new 10,700 dus and the new 26,679 people are a substantial increase in an area where no one currently lives.

As before, the DSSEIR must be rejected. The City should prepare a new Program EIR for the Project which describes the true and full Project and which uses the appropriate environmental baseline– the conditions on the ground today.

J. Section 5.10: Public Services. This Section Is Incomplete and Requires Revisions.

Section 5.10 address public services which include fire services, police services, schools and libraries. For the reasons below, this section must be revised. A16-33a

First, as indicated above, the DSSEIR has twin problems which undercut the entire analysis and continue in Section 5.10: the DSSEIR fails to analyze the full Project; and the DSSEIR uses an inappropriate baseline.

As for specific concerns, Section 5.10.1 address fire services. However, as indicated above in our discussion of hazards and hazardous materials, the Project lies within the Orange A16-33b

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County Fire Authority newly redrawn map of Very High Fire Hazard Zone Map ("VHFHZ Map"). This failing undercuts the analysis in Section 5.10 regarding fire services. A16-33b cont'd.

In addition, Impact 5.10-1 recognizes that the Project will result in the addition of new facilities and personnel over and above the 2011 Project, but states that it would not have a significant impact. Section 5.10 discusses the Orange County Fire Authority's ("OCFA") construction of new facilities in the area and:

> OCFA also has in place a Secured Fire Protection Services Agreement with the Irvine Company as part of the Northern Sphere Area that funds fire protection facilities and apparatus and would help provide adequate service to all areas surrounding and within the Proposed Project Site. A16-33c

DSSEIR, page 5.10-4. However, Section 5.10 fails to discuss whether the Project has such an agreement. Indeed, if there is no such agreement, then this is an impact which will require the mitigation of entering into such an agreement. The DSSEIR must be revised to provide for this agreement so that the Project pays its fair share for fire services.

Section 5.10.2 addresses police services. Impact 5.10-2 comes to the same conclusion for police services: the Project will require new facilities and personnel, but will not create a significant impact. Section 5.10.2 notes that, pursuant to the Amended and Restated Development Agreement ("ARDA"), the applicant has dedicated a five acre site for civic services including police. We note that Section 5.10.1 does not contain a similar provision or requirement. It should be required for fire services. A16-34

Section 5.10.3 concerns schools. Although the Project will generate additional students over and above the 2011 Project, Impact 5.10-3 concludes that the Project will not have significant unmitigated impacts on schools. Section 5.10.3 notes that the Project applicants have entered into an HF Mitigation Agreement which provides additional schools to handle the increase in students. However, it also notes that: A16-35

> "[N]ew school projects are planned to serve the 2012 Modified Project and communities outside the Proposed Project Site."

DSSEIR, 5.10-20. The DSSEIR is silent regarding the Project's participation in paying for this additional school capacity outside the Project Site. Section 5.10.3 must be revised to clarify this fee payment issue.

Section 5.10.4 addresses library services which are currently provided by the County of Orange. PPP 10-10 is interesting. It provides:

> "In the event that a city-wide library impact fee is adopted and in force, the developer shall pay this fee prior to issuance of building permits for new development. Since a 39,000 square foot library facility is approved for development within Existing PA 51, this would satisfy payment of a library impact fee, if adopted by the City at a future date." A16-36

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Impact 5.10-4 recognizes that the Project will adversely impact library services by increasing demand for libraries, it concludes that it will not create a significant impact. Section 5.10.4 notes that library users can use other County libraries including those in Costa Mesa. Given that the Project seeks to limit VMT's, this seems to create an impact on air quality and traffic. Rather, prior to approval of the Project and action on the DSSEIR, the City should adopt PPP 10-10 as an actual development fee for the City. This will insure that the Project will pay for its library impacts.

A16-36 cont'd.

As indicated above, the DSSEIR must be rejected, and the City should prepare a new Program EIR which describes the full Project and analyzes the Project's impacts using the appropriate environmental baseline. In addition, this Program EIR must address the comments above regarding Public Services.

A16-37

K. Section 5.11: Recreation Impacts. This Section Must Be Revised.

Section 5.11 addresses the recreational impacts of the Project. AS we have noted throughout, the DSSEIR fails because of its inadequate Project description and improper environmental baseline. This affects Section 5.11 as well.

A16-38a

Impact 5.11-1 concludes:

> "The 2012 Modified Project would result in an increase in the number of residents on the proposed project site as compared to the 2011 approved project, and therefore would increase the use of existing park and recreation facilities. [Impact R-1]"

However, Section 5.11 notes that:

> "Regarding community parks, as discussed above, the Applicant has satisfied its community park requirements through the past dedication of 165 acres of land and payment of fees to the City as set forth in the ARDA. Absent the ARDA, the 2012 Modified Project would require a total of 47.46 acres of community parkland, or a total of 53.35 acres of community parkland with the optional conversion."

A16-38b

DSSEIR, page 5.11-10. However, the Project must also provide neighborhood parks. Impact 5.11-2 notes that the Project includes development and dedication of 32.80 acres of additional neighborhood parks or 41.34 of such parks if the optional conversion occurs. Given this development and dedication of additional parks, the DSSEIR concludes that the Project will have no impact on recreation.

However, the Project and its housing projects will occur in phases. Given that the Project requires additional park lands for these phased housing project, the development of the parkland and its dedication should be phased so that parks are available when the houses are occupied. This is just the opposite to what the DSSEIR proposes.

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As we have indicated throughout, the DSSEIR must be rejected. The City should prepare a new Program EIR for the full Project and analyze the full Project's impacts against the appropriate environmental baseline–the conditions on the ground today. A16-38b cont'd.

J. Section 5.12: Transportation and Traffic: This Section Fails to Analyze Correctly the Project's Traffic Impacts and to Provide Necessary Mitigation.

Section 5.12 attempts to analyze the Project's impacts on traffic in the Project Area and beyond. Unfortunately, it's beginning is very misleading on several different points: this beginning undercuts the entire analysis.

First, it limits the nature and extent of the Project to be analyzed in Section 5.12.

"the Traffic Study performed analyses for years 2015, 2030, and Post-2030 for the 2012 Modified Project for Project Option 1 and Option 2 Scenarios as follows: A16-39

"• Option 1 - Includes the conversion of Institutional (Education) and Office land uses to Multi-Use (Non-Residential) or Medical and Science (R&D) in District 1 North.

"• Option 2 – In addition to the Option 1 conversions in District 1 North, this option includes a relocation of Multi-Use and Retail from District 1 North to District 1 South, as well as changes in Districts 1 North to accommodate approved residential units displaced from a portion of District 1 South."

DSSEIR, page 5.12-1. See Appendix I, page 2-4. Although this specificity benefits the discussion in Section 5.12, it is first time in the DSSEIR that this clear descriptions of the Options is had. The Project Description should be revised to incorporate this clear language.

Section 5.12.1 addresses the environmental setting. Remembering that the DSSEIR has gotten this wrong throughout, Section 5.12.1.1 attempts to right the ship. Unfortunately, this is impossible.

Section 5.12.1.1 begins:

"The baseline for this DSSEIR is the 2011 Approved Project, **not the existing conditions at the time that the environmental documentation is prepared. Although the existing physical condition would generally be the baseline for analysis, in this case, the impacts of the 2011 Approved Project have been fully analyzed in the context of expected growth and all feasible mitigation has been imposed. The 2011 Approved Project is vested pursuant to a development agreement and would remain vested whether or not the 2012 Modified Project is approved.** Therefore, the DSSEIR analysis aims to determine any traffic impacts expected from the proposed changes to the 2011 Approved Project being made by the 2012 Modified Project, and additional A16-40

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> mitigation, if required. Nonetheless, for informational purposes only, this report includes the Existing-Plus 2012 Modified Project Option 1, and Existing-Plus 2012 Modified Project Option 2 conditions analyses. These scenarios assume hypothetically that the 2012 Modified Project (Option 1, or Option 2) would be constructed immediately. "Existing" refers to the physical conditions in the study area at the time the Traffic Study was prepared. The Existing-Plus 2012 Modified Project (Option 1, and Option 2) analyses are a theoretical construct; a project of this scale will obviously not occur instantaneously, and this scenario does not take into account the cumulative growth that wo uld realistically occur during the course of development of the 2012 Modified Project, which would include various on-site and off-site infrastructure improvements in conjunction with progressive growth in the North Irvine Transportation Mitigation (NITM) Program area."

DSSEIR, page 5.12-1-2 (Emphasis supplied). See South Coast AQMD, supra, 48 Cal. 4th at 325 ("In short, an applicant's vested rights **might** constitute a valid reason to forgo particular mitigation measures, but **are not an excuse to avoid realistic CEQA analysis**." [Emphasis added.]) A16-40 cont'd.

This lengthy quote is necessary to show the extreme slippage in the DSSEIR's analysis, **in its entire analysis**. First, Section 5.12.1.1 is the only section in the DSSEIR to recognize that the environmental baseline may be incorrect, and it provides what it regards as the correct baseline: the conditions on the ground. This is fine as far as it goes, but it misstates and mis-characterizes the analysis. The only analysis which reviews the existing conditions on the ground is the Existing Plus Project. Although Section 5.12.1.1 is not clear, we must assume that all other "existing" conditions assume traffic generated by all of the earlier Projects: the 2003 Project; the eight Addenda Projects; and the 2011 Project. That is problematic and creates substantial confusion in the analysis. By not using the same baseline throughout, Section 5.12.1 is really comparing apples to oranges, and the comparison is meaningless.

Second, Section 5.12.1 then proceeds to understate the Project. For this "informational" analysis, the Project is not the 2003 Project, the eight Addenda Projects and the 2011 Project together with the Project. Rather, the Project for this informational analysis is only the "2012 Project" numbers. So, all of the traffic generated in the 2003 Project, the eight Addenda Projects and the 2011 Project are ignored. This is the second prong of the problems with the DSSEIR: it fails to describe, analyze and mitigate the entire Project– the 2003 Project, the eight Addenda Projects, the 2011 Project and the Project. Having failed this, the analysis of the "existing conditions" compared the "Project" are wildly misleading and understated: it omits all traffic generated by the earlier iterations of the Project and only compares the Project to the conditions on the ground. That understates the Project traffic demand by a wide margin. As we have said throughout, the DSSEIR must be rejected for these twin reasons: it fails to use the appropriate environmental baseline–the conditions on the ground today; and it fails to describe, analyze and A16-41

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mitigate the entire Project. Section 5.12.1.1's poor attempt to bridge this gap prominently demonstrates the failures in the analysis of the DSSEIR. A16-41 cont'd.

As to the NITM Program, the City established this Program in 2003 to identify traffic mitigation measures and to provide a way to fund these improvements and mitigation in North Irvine. Some of these improvements are programmed in the traffic model to be fully funded in the year 2015, 2030 and Post 2030. Some are only partially funded when system wide transportation improvements are planned. A16-42

Section 5.12.1.3 discusses raodway performance criteria including Levels of Service ("LOS"). As indicated above, the Project includes an amendment to the Circulation Element to allow LOS "E" to be acceptable in certain circumstances:

> "In conjunction with traffic studies for development proposed in Combined PA 51, a LOS "E" standard would be considered acceptable for intersections impacted in Planning Areas 13, 31, 32, 34, 35, 39 and a portion of Combined PA 51 south of Marine Way. LOS "E" would be acceptable (see previous Figure 3-6, Proposed Locations Where LOS E May be Acceptable) subject to the following:
>
> "1. Preparation, submittal, processing and approval of a traffic study.
>
> "2. Level of Service "E" will only be considered acceptable for an intersection that does not contain a residential quadrant unless the residential development has a net density of 30 dwelling units per acre or greater. Level of Service "E" will not be acceptable along Sand Canyon, except at the Sand Canyon/I-5 Interchange Ramps/Intersections.
>
> "3. Participation/funding to an upgraded traffic signal system, as defined in the Traffic Management Systems Operations Study (TMSOS), and/or an Advance Traffic Management System (ATMS), which may be in place at the time of processing of an individual traffic study. The City, in conjunction with specific traffic studies, shall determine the level of participation/funding required by using criteria and a process developed concurrently with the processing of each traffic study." A16-43a

DSSEIR, page 5.12-7 through -8. The nature and extent of these changes to the Circulation Element seem extreme. The public is left to wonder: how many intersections exceed the Circulation Element's standard of LOS "D?" As we stated before, this level of service degradation will spread like wildfire through the Project Site and the throughout the City. What will stop it?

Section 5.12.1.7 discusses existing peak hour intersection LOS. As indicated above, this existing peak hour traffic includes traffic generated by the 2003 Project, the eight Addenda Projects and the 2011 Project. It concludes that the only intersection to operate at an unacceptable LOS under these "existing" conditions is the intersection of El Toro Road and

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Aliso Creek Road. (This is surprising because this intersection is only three ways, not four ways, and it does not seem that traffic on Aliso Creek would have difficult time through the intersection.) Section 5.12.1.8 which addresses freeway ramp LOS notes that the only ramp which is unacceptable is the ramp at Bake Parkway and I-5 Southbound Off Ramp. Section 5.12.1.9 notes that freeway mainline segments in the study area operate at an acceptable LOS (LOS "E" or better) except I-5 southbound south of Alicia Parkway. A16-43a cont'd.

Section 5.12.2 discusses the CEQA thresholds of significance for traffic. These include:

"T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

"T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. A16-43b

"T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

"T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

"T-5 Result in inadequate emergency access.

"T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities."

Section 5.12.2 notes that T-3, T-4, and T-5 are less than significant and are not further discussed. As we have noted above, the DSSEIR should include some statement regarding the past use of the Project Site as an airfield to analyze such impacts as T-3.

Section 5.12.3 acknowledges that the 2011 Project has significant and unmitigated impacts in other jurisdictions: Lake Forest, Laguna Woods, Mission Viejo, the County of Orange and Caltrans. This Section notes that unless the City cannot work with these jurisdictions to mitigate these impacts, these impacts will remain significant and unmitigated. As discussed below, the Project has a similar impacts. A16-44

Section 5.12.4 discusses the Project's traffic impacts. Surprisingly, it begins with another Project Design Feature ("PDF") which attempts to defer analysis on the conversion of 1,200 dus. This is: A16-45

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"PDF 12-1 The 2012 Modified Project's optional conversion of non-residential square footage to residential units, if implemented, will be subject to a traffic analysis to assess traffic impacts, if any, due to the specific changes in land use and will include a reduction in allowable Multi-Use intensity in terms of equivalent traffic generation (excluding DB units) based on AM peak, PM peak, and ADT. Conversions to other non-residential uses within the Multi-Use category, if implemented, will also be subject to a traffic analysis to assess traffic impacts, if any, and shall be reflected in terms of equivalent traffic generation based on AM peak, PM peak, and ADT."

DSSEIR, page 5.12-34. This is surprising, because the DSSEIR should include this traffic analysis as part of Section 5.12. As indicated above, the DSSEIR must analyze the worst case scenario. The Project cannot include a Project feature– the potential conversion of 53,000 square feet of non-residential uses to 1,200 residential units composed of 889 dus and 311 bonus density dus– without analyzing the traffic impacts of the Project feature. The DSSEIR cannot simply defer this analysis until the applicant decides to make the conversion.

Of course, CEQA does allow for tiered environmental analysis.

"Tiering is properly used to defer analysis of environmental impacts and mitigation measures to later phases when the impacts or mitigation measures are not determined by the first-tier approval decision but are specific to the later phases. For example, to evaluate or formulate mitigation for `site specific effects such as aesthetics or parking' (id., § 15152 [Discussion]) may be impractical when an entire large project is first approved; under some circumstances analysis of such impacts might be deferred to a **later-tier EIR**."

A16-45 cont'd.

Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection (2008) 44 Cal. 4th 459, 502-503 (quoting Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 431, fn. omitted.) (Emphasis supplied) However, the DSSEIR does not propose to prepare a "later-tier EIR;" it proposes only to prepare a traffic analysis for some unknown person, presumably someone at the City, to review. This is clearly inadequate.

As indicated above, the DSSEIR should analyze and require the conversion option. Indeed, as indicated above, portions of the DSSEIR regard the conversion to be part of the Project. Given that it is a Project feature, it must be analyzed now.

Impact 5.12-1 concludes:

"Trip generation associated with the 2012 modified project would not impact levels of service for the existing area roadway system, **as compared to the approved project**. Impacts T-1 and T-2]"

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DSSEIR, page 5.12-34 (Emphasis supplied). Of course, as indicated above, the "approved Project," the 2011 Project has significant and unmitigated traffic impacts in jurisdictions outside of the City.

Moreover, this conflicts with the conclusion of Section 5.12: no traffic impacts. At Section 5.12.7, Impact 5.12-1 concludes:

> "Without mitigation, like the 2011 Approved Project, the following impacts would be **significant**:
>
> - **Impact 5.12-1** Project generated traffic would result in significant impacts at a number of intersections in the Year 2015, Year 2030 and Post-2030 conditions.

A16-46 cont'd.

DSSEIR, page 5.12-136. As discussed below, many of these mitigation measures include traffic improvements required by NITM, Traffic Management Systems Operations Study ("TMSOS"), and/or an Advance Traffic Management System ("ATMS"). Nonetheless, the two statements in Section 5.12 cannot be reconciled: they conflict. The DSSEIR must be revised to state the correct conclusion which is that the Project will have significant impacts, some of which can be mitigated, and some of which cannot.

Section 5.12 attempts to analyze the traffic impacts of the 2012 Project and focuses on these Options 1 and 2 which are only a part of the Project. Table 5.12-4 shows the Irvine Transportation Analysis Model ("ITAM") Trip Generation comparison of the Without Project (but with the earlier iterations of the Project, i.e. 2003 Project, the eight Addenda Projects and the 2011 Project) in 2015, 2030 and Post 2030 with the 2012 Modified Project.

Table 5.12-4 shows that in 2015, the without the Project scenario will generate 3.741 am peak hour trips, 3,823 pm peak hour trips, and 41,272 average daily trips ("ADTs"). By comparison an in the same time frame, the Project will generate 5,652 am peak hour trips, 6,086 pm peak hour trips and 64,895 ADTs. That is, the Project is forecast to generate 1,911 more AM peak hour trips, 2,263 more PM peak hour trips and 23,623 more daily trips compared to Without Project conditions.

A16-47

Table 5.12-4 also shows that, for 2030/Post-2030 conditions, the 2011 Project will generate 10,902 am peak hour trips, 12,131, pm peak hour trips, and 127,930 ADTs. For the same time period, the Project (under either Option 1 or 2) will generate 12,279 am peak hour trips, 12,977 pm peak hour trips, and 137,714 ADTs. That is, the Project is forecast to generate 1,377 more AM peak hour trips, 846 more PM peak hour trips and 9,784 more ADTs compared to 2011 Approved Project.

Section 5.12.4.2 provides the discussion for the informational purposes which compares the CEQA baseline– the conditions on the ground today– with the Project (not the real Project with the Project, the 2003 Project, the eight Addenda Projects and the 2011 Project). Under this scenario, Section 5.12 states that one intersection suffers an LOS downgrade: the intersection of Culver and University under both options moves from LOS "D" to LOS "E" in the pm peak hour

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traffic. However, with the NITM improvements as mitigation for this intersection (an additional right turn lane), the LOS returns to "D."

However, the Existing-Plus-2012 Project created freeway ramp impacts at SR-133 on the northbound loop at Barranca Parkway. However, with the NITM Improvements as mitigation, this impact disappeared and the ramp operated at LOS "D." See DSSEIR, pages 5.12-45-46. Hence, for this informational analysis, the Existing-Plus-Project creates no significant impacts after mitigation. However, as indicated above, this analysis requires substantial revision: the Project does not stand on its own; it stands on the earlier Projects; the traffic impacts of the full Project– the 2012 Modified Project, the 2011 Project, the eight Addenda Projects and the 2003 Project– must be analyzed.

For the interim year 2015, for both Option 1 and Option 2, Section 5.12 notes that Caltrans is concerned about the performance of their freeway ramps in the vicinity of the Project. Section 5.12 notes that for both Options, the Project created potential impacts at Sand Canyon and I-5. Because of concerns that the lines on the ramps would back up on the mainline of I-5, the City performed a queing analysis under both scenarios for the Sand Canyon off ramps. Although under Option 1, the traffic on the ramp did not exceed acceptable limits, under Option 2, restriping the off ramp for dual left turn and dual right turn lanes was recommended. However, under this scenario, Section 5.12 fails to discuss what happens north and south along Sand Canyon after all of this traffic exits the ramp.

A16-47 cont'd.

For the out years of 2030 and beyond, the impacts become more pronounced. Option 1 affects seven (7) intersections listed at 5.12-96. However, with the NITM Program improvements as mitigation, Section 5.12 predicts that all will function within allowed limits. Again, when these improvements are made, Section 5.12 fails to discuss what are the traffics impacts down stream on the roadway.

For Option 2 in the out years, although it affects six intersections which impacts can be mitigated with the NITM Program improvements as mitigation. In addition, other intersections, e.g. Newport Drive/Irvine Boulevard and Culver Drive/Bryan Ave., are also affected and Project related impacts are required. However, if pending projects are approved with the appropriate mitigation, Section 5.12 concludes that Project mitigation will not be necessary. However, Section 5.12 fails to discuss any fair share contribution at these intersections for these impacts.

For the post 2030 analysis, although Option 1 generates impacts at three intersections as far south as Laguna Canyon/Old Laguna Canyon with the NITM improvements as mitigation, these impacts are mitigated. Option 2 has similar impacts with a similar result: mitigation cures the impacts. However, it is unclear what impacts the mitigation creates since Section 5.12 is silent on the nature and extent of the NITM mitigation improvements.

Section 5.12.4.7 discusses the amendment to the MPAH for the deletion of the extension of Rockfield Blvd. to Marine Way. If this amendment does not occur, the Option 1 will create traffic impacts at SR-133 northbound Loop On-Ramp to Barranca Parkway. It will also impact I-5 and require fair share fees in the conversion of the HOV preferential lane at the SR-133 on-

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ramp. However, Section 5.12 does not address the other impacts of the deletion of the Rockfield extension. The DSSEIR must be revised to address these issues. As indicated above, the entire DSSEIR must be revised to reflect correctly OCTA's MPAH Amendment process. A16-48 cont'd.

As indicated above, after stating that Impact 5.12-1 had no significant impacts in comparison to the 2011 Project, Section 5.12.7 states that it does have significant impacts, some of which can be mitigated and some of which cannot. It may be that the Project as compared to the 2011 Project **has no more significant impacts and mitigation than the 2011 Project, but the DSSEIR does not state this.** A16-49

Section 5.12.8 discusses the mitigation measures. These are removed from the impacts analysis, and it is difficult to place them back into that analysis. Moreover, it is unclear what impacts these traffic mitigation measures may have which will require further mitigation. A16-50

More importantly, Section 5.12.9 attempts to address the level of significance of Project impacts after mitigation. Unfortunately, the analysis is incomplete:

> "Traffic impacts of the 2012 Modified Project have been identified by analyzing the study area circulation system based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. In some cases, new project impacts that were not mitigated by improvements identified in the North Irvine Transportation Mitigation (NITM) Program have been identified for project development scenarios. Recommended mitigation measures for each impacted location are presented above. **If there are intersections where identified improvements may not be feasible due to cost, right-of-way concerns, or community opposition, traffic impacts could remain significant and unavoidable**." A16-51

DSSEIR, page 5.12-140 (Emphasis supplied). After the 142 page analysis in Section 5.12 and the 606 page Traffic Study, how can the DSSEIR leave it uncertain whether or not the Project will create additional significant and unmitigated traffic impacts? In the Program EIR for the Project or any Project EIR for the Project, the full traffic impacts and mitigation measures must be clearly analyzed and determined, and then it must be clear what are the impacts, the mitigation measures, and the remaining significant and unmitigated impacts.

Nonetheless, the DSSEIR does identify significant and unmitigated impacts for Caltrans freeways and ramps, and for intersections and segments in the Cities of Lake Forest, Laguna Woods, Mission Viejo and the County of Orange. The DSSEIR notes that the City has no control of the improvements made in other jurisdictions. The City can make it clear that the applicant will pay its fair share for mitigating those impacts to the various jurisdictions. Whether they use those funds to make the improvements is up to them, but the applicant must pay those fees to the other jurisdictions. A16-52

As indicated throughout this discussion of Section 5.12, it is confused, contradictory, and unclear. It must be revised. A16-53

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More importantly, as indicated above, the DSSEIR must be rejected entirely: the City must prepare a new Program EIR for the full Project which addresses the above concerns, uses the appropriate Project Description for the full Project, and uses the appropriate environmental baseline– the conditions on the ground today. A16-53 cont'd.

VIII. Section 6, Significant and Unavoidable Impacts, Fails Due to the Problematic Project Description and the Improper Baseline.

Section 6 addresses Significant and unavoidable impacts. It notes that there are two such impacts: air quality and transportation. However, as noted above, this analysis is undercut by the twin problems of the DSSEIR.

First, the DSSEIR failed to describe the full Project. The full Project includes the Project together with all of the earlier Projects: the 2003 Project, the eight Addenda Projects and the 2011 Projects. A16-54

Second, the DSSEIR employed the wrong baseline. It used the approved plan baseline: the 2011 Project. Unfortunately, the 2011 Project is not on the ground today. Moreover, none of the other Project or their Project features are on the ground today.

Because of these twin failings, the City must prepare a new Program EIR for the Project, analyze all Project impacts including the comments above, and use the appropriate environmental baseline to analyze Project impacts: the conditions on the ground today which is vacant land.

IX. Section 7, the Alternative Analysis, also Fails Due to the Twin Problems and It Fails to Consider Other Reasonable Alternatives.

As indicated above, the DSSEIR employs the wrong environmental baseline. As the South Coast AQMD Court held:

> "'existing physical conditions in the affected area' (*Environmental Planning & Information Council v. County of El Dorado*, *supra*, 131 Cal. App. 3d at p. 354), that is, the '"real conditions on the ground"' (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, *supra*, 87 Cal.App.4th at p. 121; see *City of Carmel-by-the-Sea v. Board of Supervisors*, *supra*, 183 Cal. App. 3d at p. 246), **rather than the level of development or activity that could or should have been present according to a plan or regulation**." A16-55a

South Coast AQMD, supra, 48 Cal. 4th 320-21 (Emphasis supplied). Here, as we have stated throughout, the environmental setting, that is the conditions on ground are that of vacant land.

The CEQA Guidelines provide:

> "The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).

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CEQA Guidelines section 15126.6(e)(2). However, Section 15126.6(e)(3)(A) further provides:

> "A discussion of the "no project" alternative will usually proceed along one of two lines:
>
> "(A) When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'no project' alternative will be the continuation of the existing plan, policy or operation into the future. Typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan."

A16-55a cont'd.

Although the true "No-Project" Alternative should be the conditions on the ground–vacant land, CEQA appears to allow the "No-Project" Alternative used by the DSSEIR. Unfortunately, the DSSEIR does not use the appropriate 2011 Project: this must include all of the earlier Projects that it builds upon.

Section 7.2 addresses the alternatives considered but rejected. It includes: (1) the No-Project/No Development Alternative; (2) Reduction of Residential Units below the 2011 Project (below 4,894 dus); (3) different alternative site; (4) increased residential development (above 10,700 dus); (4) increased non-residential development; (5) increased residential and non-residential development; (5) reduced residential development (less than the 1,200 converted residential dus).

Interestingly, the DSSEIR rejects (1) and (2) because:

> "The Applicant is vested to develop 4,894 residential units and approximately 5.3 million square feet of non-residential development within the Heritage Fields Development Districts."

A16-55b

DSSEIR, page 7-4. According to the DSSEIR, because the Applicant has vested rights, it cannot even analyze alternatives which would reduce those vested rights. Hence, the DSSEIR concludes:

> For these reasons, the City has determined that the No Project/No Development Alternative [and the Reduced Residential Units are] . . .not a legally feasible alternative to the 2012 Modified Project.

Id. However, we believe that South Coast AQMD requires that the study of such alternatives, see South Coast AQMD, supra, 48 Cal. 4th at 325 ("In short, an applicant's vested rights **might** constitute a valid reason to forgo particular mitigation measures, but **are not an excuse to avoid realistic CEQA analysis**." [Emphasis added.]), even if they were rejected because of this vested rights argument.

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Section 7 includes a similar discussion regarding the alternative site: the Applicant has a vested right to develop the Project Site; and

> "The 2012 Modified Project cannot be moved to a different location without moving the 2011 Approved Project along with it, which is not legally feasible."

DSSEIR, page 7-5. However, as indicated, South Coast AQMD regards that, regardless of vested rights, other scenarios should be analyzed for the CEQA analysis.

Moreover, the Supreme Court recently stated:

> "Desirable, then, as a bright-line rule defining when an approval occurs might be, neither of those proposed-the execution of an unconditional agreement irrevocably vesting development rights, or of any agreement for development concerning a well-defined project-is consistent with CEQA's interpretation and policy foundation. Instead, we apply the general principle that before conducting CEQA review, **agencies must not 'take any action'** that significantly furthers a project "'in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project.' (Cal. Code Regs., tit. 14, § 15004, subd. (b)(2)(B); accord, McCloud, supra, 147 Cal.App.4th at p. 196 [agreement not project approval because, inter alia, it "did not restrict the District's discretion to consider any and all mitigation measures, including the `no project' alternative"]; Citizens for Responsible Government, supra, 56 Cal.App.4th at p. 1221 [development agreement was project approval because it limited city's power "to consider the full range of alternatives and mitigation measures required by CEQA"].)"

A16-55b cont'd.

Save Tara v. City of West Hollywood (2008) 45 Cal. 4th 116, 138-139 (Emphasis supplied0.

Section 7 further rejects the increased development alternatives because of increased air quality impacts and increased VMTs. However, Section 7 notes that, for increased residential development,

> "However, traffic studies for the 2011 Approved Project have shown that even increased residential development is likely to have VMT rates and increased trips that would still cause significant air quality impacts."

Id. The same applies to increased non-residential development, DSSEIR, page 7-6, and increased residential and non-residential development, id.

As to the reduced residential, i.e. no residential conversion, the DSSEIR concludes that this would adversely affect population and housing by increasing the jobs/housing balance.

The only alternatives that the DSSEIR considers are the No-Project 2011 Project Alternative; and the Marine Ave. Realignment Alternative. The Supreme Court recently provided guidance in connection with the alternatives analysis:

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> "'In determining the nature and scope of alternatives to be examined in an EIR, the Legislature has decreed that local agencies shall be guided by the doctrine of "feasibility."' (Goleta, supra, 52 Cal.3d at p. 565.) CEQA defines 'feasible' as 'capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.' (Pub. Resources Code, § 21061.1; see also Cal. Code Regs., tit. 14, § 15364.)
>
> "'There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.' (Cal. Code Regs., tit. 14, § 15126.6, subd. (a).) The rule of reason 'requires the EIR to set forth only those alternatives necessary to permit a reasoned choice' and to 'examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.' (Id., § 15126.6, subd. (f).) An EIR does not have to consider alternatives 'whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.' (Id., § 15126.6, subd. (f)(3).)
>
> "The process of selecting the alternatives to be included in the EIR begins with the establishment of project objectives by the lead agency. 'A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings . . The statement of objectives should include the underlying purpose of the project.' (Cal. Code Regs., tit. 14, § 15124, subd. (b).)"

A16-55b cont'd.

In re Bay-Delta (2008) 43 Cal. 4th 1143, 1163. It is unclear that the DSSEIR has exercised the rule of reason in developing its truncated list of alternatives. For instance, even assuming the 2011 Project is vested and sacrosanct as the DSSEIR opines, a reasonable alternative would split the difference between the 2011 Project and the Project: reduced dus but greater than the 2011 Project; increased commercial but specified uses; specify all uses in and around the Project Site. This alternative is reasonable but would further tie the applicant's hands in changing the Project.

Going back to the listed alternatives, as to the first alternative, the DSSEIR maintains that this is already entitled. Although the Project has fewer impacts than this "No-Project" Alternative, they both have significant and unmitigated traffic and air quality impacts. Further, it is unclear that it meets all of the Project objectives including addressing the jobs/housing imbalance.

A16-55c

As to the second alternative, the small change– an alternative route to Bake Parkway– is not true alternative. It does not really change the analysis, but it may have a small impact to lessen traffic. However, ultimately, it will not lessen impacts.

As indicated above, many more reasonable alternatives are available. The DSSEIR should be revised to develop further alternatives similar to that suggested here.

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More importantly, as indicated above, the DSSEIR suffers from twin problems: the inadequate Project Description; and the improper environmental baseline. Both of these undercut the analysis of Project Objectives and the entire impacts analysis. This carries through to the Alternatives analysis, because the public cannot assess the Project or its impacts without addressing and fixing these two problems.

A16-55c cont'd.

Finally, as stated throughout, the DSSEIR must be rejected: the City should prepare a new Program EIR to define the full Project correctly, to use the appropriate baseline, to address the comments above, and to develop reasonable alternatives as suggested above.

X. Section 8's Discussion of Impacts Found Not to Be Signficant Fails; the DSSEIR Must Discuss Potentially Significant Additional Impacts.

As indicated above, the Project will have significant impact, not recognized by the DSSEIR and not understood by the Initial Study, in large part because both documents suffer from the twin problems: the Project Description fails to describe the full Project; and the environmental setting is wrong. The Project Description fails to describe he full Project which is the 2003 Project, the eight Addenda Projects, the 2011 Project and the 2012 Project. Because of this Section 8 (and Section 5's impact analysis) cannot correctly assess and explain significant and insignificant Project impacts.

The improper environmental baseline heightens the Project problem: the environmental setting is not, the 2011 Project– that is part of the Project Description–it is the condition on the ground today: vacant land. The DSSEIR cannot understand the Project's impacts without understanding the full Project and it cannot assess those impacts without understanding the environmental setting– vacant land– in evaluating the Project.

A16-56

So, for instance, the analysis of the environmental impacts of aesthetics and agriculture for perfect examples of these problems.

As indicated above, the Project will create impacts on aesthetics including introducing light and glare to areas which have no lighting or glare currently. However, Section 8 discusses the Project impacts based upon the erroneous 2011 Project baseline: a development with light, glare and other development in an area where today nothing exists but vacant land. So, with this erroneous baseline, the Project has no aesthetic impacts: no new light or glare is introduced as a result of the Project. However, as a result of the Project and compared to vacant land, the Project has significant aesthetic impacts: new light sources and new sources of glare in the area of vacant land. These are significant Project impacts.

Likewise, the analysis of the Project's impacts on agriculture suffer a similar fate for the very same reasons: although Section 9 recognizes no significant impacts to agriculture, given a correct understanding of the Project and the environmental setting, the Project will have a significant impact on agriculture and agricultural lands. As a result of the full Project, the City will lose valuable agricultural lands. This will create a significant environmental impact on agriculture which can be mitigated, e.g. by requiring the establishment of substantial agricultural

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preserves on the Project Site. However, given the truncated Project Description and the erroneous environmental setting, the DSSEIR misses this impact and the proposed mitigation.

Other areas suffer similar problems for similar reasons including air quality, GHG, hazardous materials, land use, transportation and others.

Probably the most glaring omission of the DSSEIR is its failure to analyze the potentially significant impacts of the Project on biological resources. The relocation of the wildlife corridor is a significant feature of the Project. By definition, this relocation has the potential to create significant impacts on biological resources. However, the DSSEIR offers no analysis of the Project's impacts. In part this is due to the twin problems: the inadequate Project Description; and the incorrect environmental baseline. The other part is simple ignorance: the DSSEIR hopes to ignore this impact so that no one will comment on it. We have and will continue to make comments on this issue. A16-56 cont'd.

As we have indicated throughout, the City must reject the DSSEIR: it is inadequate; it fails to describe the full Project; and it fails to assess Project impacts based upon the correct environmental baseline. The City should prepare a new Program EIR for the full Project which employs the correct baseline to assess the Project's impacts.

XI Section 10, Growth Inducing Impacts, Is Flawed and Must Be Revised.

Although Section 18 of the Initial Study discusses the "Mandatory Findings of Significance, Section 10 omits this discussion in favor of "Growth Inducing Impacts." As authority for this assertion, Section 10 cites CEQA Guidelines sections "15126(d) and 15126.2(d)." This is incorrect: although both of the cited sections address growth inducing impacts, neither discusses any precedential action as Section 10 does. A16-57

More importantly, the Initial Study contains no discussion of "Growth Inducing Impacts" or such precedents for growth. Indeed, Section 18 of the Initial Study is entitled the "Mandatory Findings of Significance." Section 10 addresses none of these. Rather, Section 10 addresses its own issues–what it styles are the mandatory findings of significance, and then of course comes up with benign answers for the Project's impacts.

First, it concludes that the Project would not remove obstacles to growth. Although the General Plan and Zoning Code provide some controls over growth, Section 10 does not discuss the Project's Amendments to both the General Plan and Zoning Code. Because the Project requires such amendments including amendments to the Circulation Element and the MPAH, the Project will remove obstacles to growth. A16-58

Second, Section 10 concludes that the Project would not require expanded public services. However, Section 5.10 is replete with instances of expanded services: fire; police; schools. Section 10 notes that all of these were addressed in the 2011 Project so there is no significant impact. As indicated above, the 2011 Project is not the baseline; it is part of the Project. Hence, Section 10's answer requires revision.

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Third, Section 10 states that the Project will not create additional effects which could create significant environmental effects. The Initial Study stated that the cumulative impacts of the Project could be significant and would require mitigation. Section 10 concludes that, because the 2011 Project had similar impacts, the Project would not create additional impacts. Again, the inadequate Project Description and the improper baseline undercut Section 10's conclusion.

Fourth, Section 10 states that the Project will not create a land use precedent. First, it is unclear that any land use decision creates a precedent. The common law has long regarded land and decisions regarding land as unique. Because of this uniqueness, land use decisions are not precedential. However, Section 10 states that, because of the 2011 Project, the Project is not precedential. Again, this "analysis" is undercut by the truncated Project description and the improper environmental baseline. A16-58 cont'd.

When the City does a new Program EIR for the Project, it must correct these problems and correctly analyze the Mandatory Findings and the Project's growth inducing impacts.

XII. Conclusion: The DSSEIR Must Be Rejected; The City Should Prepare a New Program EIR for the Full Project and Use the Appropriate Environmental Baseline.

As indicated throughout, the DEIR is wholly inadequate for a whole host of reasons: it fails to explain the full Project which includes all of the earlier Projects including the 2003 Project, the eight Addenda Projects, the 2011 Project and the Project; it fails to employ the appropriate environmental baseline which undercuts the entire impacts analysis of Section 5 and the entire DSSEIR; and it fails to analyze the Project's Alternatives and the Mandatory Findings. Of course, we reserve the right to supplement these comments in the hearing process on the DSSEIR. A16-59

Again, thank you for the opportunity to comment on the captioned document for the captioned Project. We look forward to participating the in the public hearing process, receiving responses to these and other comments, and commenting on those responses at the appropriate public hearings. Of course, should you have any questions, please do not hesitate to contact us.

Sincerely,

LAW OFFICES OF ROBERT C. HAWKINS

By: Robert C. Hawkins

RCH/kw

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A16. Response to Comments from Robert C. Hawkins, Friends of Continued Good Planning in Irvine, dated September 7, 2012.

A16-1 The commentator thanks the City for the opportunity to comment and acknowledges the extended comment period. In addition, he compliments the City's land use planning, and contrasts it with general criticisms of the procedures and standards used in the preparation of the SSEIR. Because the commentator's statements do not address specific statements in the SSEIR, no further response to this comment is required.

A16-2 The commentator presents his summary of 15 individual concerns, which he states are discussed in greater detail below, and which he asserts require the City to prepare a new Program EIR for the Project. Preparation of a new Program EIR for the 2012 Modified Project is not necessary, as discussed in further detail in Topical Response 1, Project Description and Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR. Because the commentator's statements are general, and do not address specific statements in the SSEIR, no further response to this comment is required.

A16-3 The summaries and quotes from portions of CEQA (Pub. Res. Code §§ 21000 et seq.) and the CEQA Guidelines (Title 14, Cal. Code of Regs. §§ 15000 et seq.), do not address specific statements in the SSEIR. As such, no further response to this comment is required.

A16-4 As described in Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR, the baseline used in the SSEIR is proper, rather than the use of the 2003 OCGP EIR as a baseline.

A16-5 The SSEIR correctly states the proper method for obtaining an amendment to the MPAH, based on the advice from the OCTA that was provided to the lead agency. The commentator argues, with no support, that the proper method is first to obtain an amendment to the City's Circulation Element, then an amendment to the MPAH. OCTA has advised the City that the City may not amend its Master Plan of Arterial Highways (MPAH) (Figure B-1 of the General Plan Circulation Element) until the OCTA Board has approved the proposed revision to the County's MPAH. If the City acts first, as the comment wrongly asserts, the City's General Plan would be found in conflict with the County's MPAH and the City could become ineligible for Renewed Measure M funding. Indeed, the SSEIR is clear that OCTA must act prior to any action by the City. The Project Description states that the General Plan amendment includes "amendment of the Master Plan of Arterial Highways, Figure B-1, to eliminate the extension of Rockfield Boulevard from the eastern boundary of the Proposed Project Site to Marine Way once the Orange County Transportation Authority (OCTA) has approved this proposed amendment to the countywide Master Plan of Arterial Highways (see Figure 3-4, Proposed MPAH Amendment)" (emphasis added). Response A10-1 discusses the MPAH amendment in further detail.

A16-6 The commentator repeats statements in the Project Summary regarding the modification of Objective B-1 of the Circulation Element sought by the 2012

Modified Project, but does not address specific statements in the SSEIR. As such, no further response to this comment is required.

A16-7 The commentator criticizes the "Areas of Controversy" as listing only schools, when it should have listed other subjects. However, as that subsection states, it reports only on the comments received in response to the NOP at the scoping meeting held on April 19, 2012. This subsection was not intended to anticipate comments that might be made by the public in response to the DSSEIR.

A16-8 The commentator summarizes his prior comments as set forth above in Comment Numbers A16-4 through A16-7. Please see Responses A16-4 through A16-7, above.

A16-9 The baseline used in the SSEIR is proper, as explained in the Topical Response 2, Baseline.

A16-10 The 2012 Modified Project may have significant and unavoidable traffic impacts if other cities fail to fully mitigate them in their jurisdictions. The City is initiating a Cooperative Study with the affected jurisdictions to ensure that any changes will not adversely affect the MPAH. The commentator is referred to Response A10-1 (Paragraphs 2 - 4).

A16-11 The ten earlier environmental analyses, including the 2003 OCGP EIR, the 2011 SEIR and the eight previous Addenda to the 2003 OCGP EIR are incorporated into the SSEIR by reference. CEQA does not require or suggest that lengthy documents such as the ten previous environmental analyses be included in the appendices to the SSEIR; rather, CEQA encourages reducing the size of an EIR by citation to other documents (CEQA Guidelines § 15148) and by incorporation by reference (id. § 15150), which was done here. The City has these documents and, as the SSEIR states, they are, and have been since the release of the DSSEIR, available for review at the City's Community Development Department at the address listed on page 2-6 of the DSSEIR. Additionally, the City has these documents in electronic form and in the City Clerk's Record and has made them immediately available upon request throughout the review process on page 2-6 of the DSSEIR.

A16-12 The baseline used in the SSEIR is proper, as discussed in Topical Response 2, Baseline. Moreover, the "project" is correctly described as only the 2012 Modified Project and does not include the previously approved entitlements (i.e. the 2011 Approved Project)See Topical Response 1, Project Description in Chapter 2.0 of this FSSEIR.

A16-13

a. The commentator asserts that the Project Objectives are inconsistent with the SSEIR's analysis of the 2012 Modified Project or the changes proposed in the 2012 Modified Project in the following respects: (1) the SSEIR does not analyze the impacts of the 2012 Modified Project's proposed conversion of non-residential space to residential uses; (2) the amendments to the City's Circulation Element and to the MPAH are not included in the Transportation Project

Objectives; and (3) the proposed Relocated Wildlife Corridor Feature is not included in the Project Objectives for Open Space.

However, the impacts of the 2012 Modified Project's proposed conversion of non-residential space to allow for the addition of 3,412 residential units in Combined PA 51 and 1,194 density bonus units (in addition to the already approved 4,894 units), and its proposed optional conversion of 535,000 square feet of Multi-Use space for up to an additional 889 units and 311 density bonus units, is analyzed throughout the SSEIR in each environmental analysis (see, e.g., Chapter 5, Environmental Analysis, of the DSSEIR), with the exception of traffic, as discussed in Response A10-4.

The amendments to the City's Circulation Element and to the MPAH are not included in the Transportation Project Objectives because they are not in fact objectives of the 2012 Modified Project. Instead, they are amendments that are required by land use changes proposed by the 2012 Modified Project. There is a Land Use Project Objective directed to the Relocated Wildlife Corridor Feature, which is listed as the third-to-last Project Objective under that heading. The fact that this objective was listed under the Land Use heading also does not change the nature or the importance of that objective. Also, a more extensive review of the wildlife corridor is contained in the Wildlife Corridor Plan ("WLC Plan"), attached as Appendix C of the FSSEIR.

b. The 2011 Approved Project used as the baseline in the SSEIR was proper. See Topical Response 2, Baseline, in Chapter 2 of the FSSEIR

A16-14 The Relocated Wildlife Corridor Feature is described in detail in the WLC Plan.

A16-15 See Response A16-5.

A16-16 Discussion of use of Level of Service "E" for some roadways within the Great Park and possible traffic impediment is contained in Response A15-61.

A16-17

a. See Response A16-13a. This optional conversion would result in a total of 10,700 dwelling units within the Proposed Project Site, including density bonus units. Therefore, there is no conflict with the Project Objective. Analysis of the conversion and requirements is discussed in Response A10-4.

b. The Zone Changes proposed do not remove land use regulations, but simply replace existing land use regulations with new regulations more specifically addressed to the land uses and configurations proposed by the 2012 Modified Project. For example, the Zone Change imposes height and setback standards in the vicinity of the Irvine Station that are appropriate to transit oriented development. The Zone Change also adds specifics about District Character for each area. In addition, as explained in Response A16-13a, above, the Project Description of the 2012 Modified Project is clear with respect to its proposed

conversion and its proposed optional conversion of non-residential intensity to residential uses.

A16-18 PDF 4-1 from the SSEIR and the similar assumption in the 2011 SEIR, both assume that the land use configurations would result in a 25 percent reduction in VMT. The commentator then assumes that these two statements together mean that the 2012 Modified Project reflects a 50 percent reduction in VMT as compared to the project analyzed in the 2003 OCGP EIR. The commentator's assumption is incorrect. These two assumptions are not additive; rather, the 2012 Modified Project simply includes the same assumption that the 2011 SEIR Approved Project included, that estimated VMT would be reduced by approximately 25 percent from the assumptions included in the California Emissions Estimator Model "CalEEMod:, not from the 2011 Approved Project or from the project analyzed in the 2003 OCGP EIR. The 25 percent VMT reduction is based on the California Air Pollution Control Officer Association's (CAPCOA) publication entitled "Quantifying Greenhouse Gas Mitigation Measures" (August 2010), which estimates the likely reduction in VMT for compact infill projects. This assumption is an adjustment made in the modeling and is discussed necessarily in detail in Section 2.3.3 of the Air Quality Technical Report and in Section 4.3.5 of the Climate Change & Greenhouse Gas Emissions Technical Report, Appendices C and D to the SSEIR. That language states:

"ENVIRON utilized the methods discussed in the California Air Pollution Control Officer Association's (CAPCOA) publication entitled "Quantifying Greenhouse Gas Mitigation Measures" (August 2010) to estimate the reduction in VMT for the mitigation measures included in the 2012 Modified Project and 2011 Approved Projects as project design features or mitigation measures assuming a compact infill project setting. The 2011 Approved Project was considered a compact infill development and the 2012 Modified Project will further improve the job-housing balance in the region by increasing the amount of residential units while at the same time reducing the amount of non-residential uses; as a result, the 2012 Modified Project reduces the 2011 Approved Project's significant impact on the jobs/housing balance to less than significant. The 2012 Modified Project is also expected to maintain characteristics typical of compact infill development, as described above, and similar to those in the 2011 Approved Project. The CAPCOA publication methods use the inputs for trip rates, trip lengths, and criteria describing the mitigation and project design features to estimate the vehicle miles traveled (VMT) and the associated emissions. Based on this level of mitigation, the 2012 Modified Project and 2011 Approved Projects could result in over 30% reduction in VMT based on the caps for compact infill. However, according to the CAPCOA Manual, a limited number of case studies in Southern California described as compact infill, show slightly lower levels of observed mitigation. Therefore, to be conservative, it was assumed that there would be only a 25% reduction in VMT, which is within the range observed in Southern California. ENVIRON used urban trip lengths in the model, as the development will be located near an urban area. ENVIRON used 2030 as the build out year to estimate vehicle emissions."

A16-19 PDF 4-12's commitment to undertake a traffic analysis should the Applicant determine to exercise the optional conversion of all or a portion of the 535,000 square

feet of Multi-Use intensity to residential uses is not deferred mitigation. As discussed in Response A10-4, the SSEIR analyzes the optional conversion in all areas except in the traffic analysis. PDF 12-1 and Section 9-51-6(T) of the Draft Zoning specify that future traffic analysis will occur for the optional conversion, if necessary. Any greater analysis would be speculative at this point, when the location, number and type of the residential units are determined. Subsequent environmental review, if deemed necessary, will be performed at that time. The commentator also asserts that a new Program EIR is necessary. As described in Topical Response 1, Project Description in Chapter 2.0 of this FSSEIR, a new Program EIR is unnecessary.

A16-20 The two Options, described in Chapter 3, *Project Description*, and Section 5.12, *Transportation and Traffic*, both simply involve "flipping" land uses from District 1 North to District 1 South and vice-versa, without any change in the number of residential units or the intensity of non-residential space. The 2012 Modified Project would not result in more than 10,700 dwelling units regardless of which Main Street option is implemented. Moreover, the optional conversion is the same for either Main Street scenario. The following language will be added to the Project Description:

"The 2012 Modified Project includes the conversion of institutional and office uses to Multi-Use and Medical Science in District 1 North, which is referred to as "Option 1." Option 2 includes the conversion of Institutional and Office land uses to Multi-Use or Medical and Science land uses in District 1 North, and in addition (i) the relocation of Multi-Use and Retail from District 1 South to District 1 North; (ii) relocation of residential units from District 1 South to District 1 North; and (iii) changes in Districts 1 North to accommodate the approved residential units displaced from a portion of District 1 South."

A16-21 The list of subsequent discretionary and ministerial actions that may be taken based on the SSEIR, is one of the topics CEQA requires be included in an EIR's Project Description (see, e.g., CEQA Guidelines § 15124(d)), and the SSEIR includes all of the analyses required for these additional discretionary acts. See Topical Response 2, Baseline.

A16-22 See Topical Response 1, Project Description.

A16-23 The commentator states that, in general, the analyses in Chapter 5, Environmental Analysis, of the SSEIR are inadequate and that the cumulative effect of the 2012 Modified Project's less than significant impacts is significant and requires further analysis. The commentator's individual comments are addressed below. Because the commentator's statements are general, and do not address specific statements in the SSEIR, no further response to this comment is required.

A16-24

a. The commentator challenges the baseline used for the impacts analyses (conversion to residential, the two Options, light and glare, development of additional land and Relocated Wildlife Corridor Feature impacts) in Section 5.1, *Aesthetics*, of the SSEIR, asserting that the proper baseline should have been the

2003 OCGP EIR rather than the 2011 Approved Project. The SSEIR uses the proper baseline for 2012 Modified Project, as discussed in Topical Response 1, Project Description in Chapter 2.0 of this FSSEIR.

b. See Response A16-17a, above, and A10-4.

c. The commentator criticizes wording of the SSEIR's conclusion that the 2012 Modified Project's aesthetic impacts "are not expected to be significant" as compared to the impacts of the 2011 Approved Project. The SSEIR will be modified as follows:

"Therefore, the aesthetic impacts of the 2012 Modified Project's proposed conversion of non-residential to residential uses will not be significant compared to the 2011 Approved Project (Page 5.1-5 of the SSEIR)."

d. See Response A16-20. See Topical Response 2, Baseline. Light and glare impacts will not be significant based on the comparison of the 2011 Approved Project and the greater number of residential units in the 2012 Modified Project.

A16-25

a. See Topical Response 2, Baseline.

b. The commentator asserts that the 2012 Modified Project will conflict with the zoning at the Proposed Project Site because the site of the Relocated Wildlife Corridor Feature is currently zoned 1.1, Exclusive Agriculture. As a preliminary matter, the commentator's statement is factually incorrect since the majority of land for the Relocated Wildlife Corridor is currently zoned 8.1 TTOD. For the 13-acre portion that is not zoned 8.1, the 2012 Modified Project proposes to change the zoning of the site of the Relocated Wildlife Corridor to 1.4, Preservation. Therefore, if the 2012 Modified Project is approved, this zone change will be approved along with the Relocated Wildlife Corridor Feature, and there will be no conflict, as explained on page 5.2-19 of the SSEIR. Therefore, there would not be a significant impact under this threshold. The SSEIR does analyze cumulative impacts to agriculture, as discussed in Response A16-25c, below.

c. The impacts of development of Farmlands of Statewide Importance shown adjacent to the Irvine Station on Figure 5.8-1 in the 2003 OCGP EIR were analyzed in the 2003 OCGP EIR and determined to be significant and unavoidable, and the City adopted a Statement of Overriding Considerations as a result. Subsequently, Addendum 5 to the 2003 OCGP EIR determined that the City's General Plan Objective L-10 establishes the Irvine Agricultural Legacy Program to mitigate the loss of existing agricultural land throughout Irvine where development under the General Plan is designated to occur, and concluded that the impact was no longer significant. Addendum 5 further determined that the loss of 173 acres in PAZ 1 would not be a significant impact because none of the acres was being used to grow crops and due to the Legacy Program. Moreover,

Addendum 5 also concluded that the additional agriculture in the new Great Park would offset this loss. In addition, as stated in Chapter 8, *Impacts Found Not to Be Significant*, of the 2011 SEIR, the 2008 Farmland Mitigation Mapping Program shows the Approved Project Site as either Urban or Built-Up Land or as Land Committed to Non-Agricultural use. Therefore, the SSEIR properly analyzes only the changes to the development already approved as part of the 2011 Approved Project proposed by the 2012 Modified Project.

A16-26

a. See Topical Response 2, Baseline.

b. The commentator challenges the assumption set forth in PDF 4-1 that the 2012 Modified Project's land use configuration results in a 25 percent reduction in VMT, and cites a white paper published by the California Climate Change Center entitled Urban Growth in California dated July 2012. The commentator claims that the 2012 Modified Project should be characterized as being "remote from many urban centers" and therefore should be "charged an impact." However, the SSEIR's assumption is based on the evidence included and referenced in the Air Quality Technical Report, Appendix C to the DSSEIR, and that evidence in fact supports the SSEIR's use of a 25 percent reduction in VMT based upon the 2012 Modified Project's land use configuration.

As a preliminary matter, Combined PA 51 is not properly characterized as remote from many urban centers, but is an infill area that is planned for development as an extension of the already existing urban center at the intersection of the I-5/I-405 freeways, including a major transit station serving the entire Southern California region, and current and planned growth along its eastern boundaries, meaning that the Project will be virtually surrounded by growth.

Specifically, as explained in Appendix C of the DSSEIR, the City's consultant, ENVIRON, took into account the following mitigation measures based on conceptual planning for the 2011 Approved Project and the 2012 Modified Project (with and without optional conversion): (1) both the 2011 Approved Project and the 2012 Modified Project would have a density of approximately 9.6 dwelling units per acre to 11 dwelling units per acre; (2) Proposed Project Site would have a density of intersections per square mile similar to that of the 2011 Approved Project; (3) Proposed Project Site is located no more than 2 miles from downtown or job center; (4) Proposed Project Site is located no more than 4 miles from transit center; (5) 2011 Approved Project will include 544 below market rate units, the 2012 Modified Project will include up to an additional 512 below market rate units and the 2012 Modified Project with Optional Conversion will have up to an additional 645 such units; and (6) both projects will have connecting pedestrian and bike paths both on the Proposed Project Site and off-site.

ENVIRON utilized the methods discussed in the California Air Pollution Control Officer Association's (CAPCOA) publication entitled "Quantifying Greenhouse Gas Mitigation Measures" (August 2010) to estimate the reduction in VMT for the mitigation measures included in the 2012 Modified Project and 2011 Approved Project as project design features or mitigation measures assuming a compact infill project setting. This method uses the inputs for trip rates, trip lengths, and criteria describing the mitigation and project design features to estimate the VMT and the associated GHG emissions.

Based on this level of mitigation, the 2012 Modified Project (with and without optional conversion) and 2011 Approved Project could result in over 30% reduction in VMT based on the caps for compact infill. However, according to the CAPCOA Manual, a limited number of case studies in Southern California described as compact infill show slightly lower levels of observed mitigation. Therefore, to be conservative, it was assumed that there was only a 25% reduction in VMT, which is within the range actually observed in Southern California…ENVIRON used urban trip lengths in CalEEMod, as the development will be located near an urban area. ENVIRON used 2030 as the build out year to estimate vehicle emissions. See Response A15-59.

c. The analysis in the SSEIR (Impact 5.3-5) demonstrates that there would not be a significant impact related to elevated concentrations of CO at intersections. The CO hotspots evaluation considers the background CO concentration of existing sources such as the I-5/405 freeway emissions.

d. Mitigation Measures AQ-3 through AQ-5 do not improperly defer mitigation, but only require that the mitigation plans be created at the time that the development will actually be occupied, which will be many years in the future under conditions that were not known in May 2003 (when these measures were first adopted) and are not known even currently; moreover, as required by CEQA, AQ-3 and AQ-5 contain lists of standards to be met and/or measures to be included for future mitigation formulation. Finally, the SSEIR, like all of the environmental analyses for the development on Combined PA 51, acknowledges that the operational air quality impacts will be significant and unavoidable and does not suggest these mitigation measures can reduce those impacts to a less than significant level.

e. See Topical Response 2, Baseline. The 2011 Certified EIR has already been approved and is beyond legal challenge.

A16-27

a. See Topical Response 2, Baseline.

b. See the detailed discussion in Response A16-26b, above.

c. There are various different draft thresholds other than the Efficiency Metric being considered by the SCAQMD. However, CEQA Guideline 15064.4 gives

the City the discretion to choose the method it will use to determine the significance of greenhouse gas emissions. On June 12, 2012, the City adopted its CEQA Guidelines, in which it formally adopted the significance thresholds for greenhouse gas emissions that are used in the SSEIR and there was substantial evidence to support that determination. As such, the SSEIR properly uses the efficiency metric as one of the thresholds for determining the significance of the 2012 Modified Project's greenhouse gas emission impacts. The analysis also indicates that the 2012 Modified Project would also not be significant using AB 32 as the threshold.

A16-28

a. See Topical Response 2, Baseline.

b. The commentator has incorrectly characterized the Proposed Project Site as "extensively contaminated". As described in detail in Section 5.5, *Hazards and Hazardous Materials*, of the SSEIR and Section 5.5, *Hazards and Hazardous Materials*, of the 2011 SEIR, the remediation of the Approved Project Site and Proposed Project Site has been ongoing for years, and many areas require no further action (see SSEIR, Section 5.5, Table 5.5-1, p. 5.5-5). Moreover, the commentator ignores the fact that the SSEIR need only analyze the changes to the 2011 Approved Project proposed by the 2012 Modified Project. The Initial Study and the SSEIR (see Chapter 8, *Impacts Found Not to Be Significant*) determined that the changes proposed by the 2012 Modified Project would not result in significant impacts as compared to the impacts of the 2011 Approved Project analyzed in the 2011 Certified EIR. As such, there was no reason to repeat the analysis of these impacts included in the 2011 Certified EIR in the SSEIR.

c. The hazards and hazardous materials at the Proposed Project Site are existing conditions, not impacts of the 2012 Modified Project. The Project will bring more people to the site, but as the SSEIR states, the areas affected by the pre-existing hazards and hazardous conditions at the Proposed Project Site cannot be developed until they have been remediated by the DON and approved for development or approved with institutional controls as mitigation measures, and prior to the issuance of grading permits, the Applicant must demonstrate to the City that the development will not create any increased risk to human health and the environment. Further, development of the Proposed Project Site, and of the entire Approved Project Site, has been extensively analyzed in the 2011 Certified EIR; only the changes proposed by the 2012 Modified Project have been analyzed in the SSEIR, and the 2012 Modified Project includes all of the previously adopted mitigation measures and PDFs included in the 2011 Approved Project.

d. The commentator asserts that Section 5.5 fails to recognize that, purportedly, "the entirety of the northwesterly portion of the" Proposed Project Site is located "within the VHFHZ [Very High Fire Hazard Zone]." The commentator's reference is confusing, because District 8, which is the northwest corner of the

site, is not within the VHFHZ. As stated in Section 5.4, *Hazards and Hazardous Materials*, the only portion of the Proposed Project Site that is within the VHFHZ is District 7 (northeast corner), and the City has already imposed conditions to mitigate any potential impacts. Specifically, the applicant already obtained approval from the OCFA for a fire master plan in conjunction with the VTTM and Master Plan approvals.

A16-29

a. See Topical Response 2, Baseline.

b. Section 5.6.1 clearly states on page 5.6-2 that impacts HYD-2, HYD-9 and HYD-10 were determined in the Initial Study to be less than significant, as explained in Chapter 8, *Impacts Found Not to Be Significant*, of the SSEIR. In turn, page 8-12 of Chapter 8 explains why those impacts, listed as impacts B, I and J, were determined to be less than significant for the 2012 Modified Project. Therefore, the SSEIR does identify those impacts and does explain to the public why they have been determined to be less than significant.

c. The analysis supporting the conclusion that impacts HYD-4 and HYD-5 would be less than significant appears on pages 5.6-2 through 5.6-6, pages that precede the analysis of Impact 5.6.1-1, and the analysis of that impact specifically refers to that preceding analysis. Second, the commentator fails to acknowledge the fact that the 2011 Approved Project is the baseline for the analysis of the impacts of the 2012 Modified Project. The SSEIR properly analyzes the impacts of the changes of the 2012 Modified Project as compared to the impacts of the 2011 Approved Project analyzed in the 2011 Certified EIR. With the drainage improvements included in the 2011 Approved Project, as modified by the 2012 Modified Project, portions of the Proposed Project Site that would have been subject to flooding will no longer be subject to flooding; as a result, a LOMR will be completed reflecting that fact and changing the flood hazard map boundaries accordingly.

d. Section 5.6.2.1 includes extensive information regarding the condition of San Diego Creek and Upper and Lower Newport Bay , as does the 2011 Certified EIR (see Section 5.5.2 of the 2011 SEIR and Section 5.7 of the 2003 OCGP EIR).

e. The commentator asserts that the discussion of Impact 5.6.2-1 fails to address flood control improvements addressed previously with respect to Impact 5.6.1-2 that the commentator claimed had not been acknowledged in Impact 5.6.1-1. However, the previous discussion related to hydrology, not water quality. The impact discussed under Impact 5.6.2-1 relates to whether the 2012 Modified Project would substantially alter the Proposed Project Site's drainage patterns so as to result in substantial erosion or siltation; based on the DAMP, the analysis concluded it would not.

f. The 2012 Modified Project, like the 2011 Approved Project, has several measures in place to address selenium, farming and fertilizer use. The 2012 Modified Project will be using bioretention to treat the stormwater runoff. Moreover, as part of the grading process, the agricultural soil will be incorporated with engineered fill and will no longer be susceptible to erosion and transport.

See Topical Response 2, Baseline.

g. With respect to the prior criticisms regarding the surface flow/flood control analyses and water quality impacts, please see Responses A16-29a, c, e and f, above. With respect to the IRWD's NTS, the Section does discuss this system on pages 5.6-20 through 23, as did the 2011 SEIR in Section 5.5.2. Further, the 2012 Modified Project will implement Construction SWPPPs that are compliant with relevant SWRCB/SARWQCB regulations and that will control stormwater runoff during land development. Moreover, the commentator's statement regarding the SSEIR's failure to discuss IRWD's NTS program is incorrect; IRWD has adopted bioretention guidelines as part of its NTS program, and Section 5.6.2 of the DSSEIR discusses that program and its application (see pp. 5.6-20 through 23).

h. See Topical Response 2, Baseline.

A16-30

a. The commentator asserts that the Initial Study and Chapter 8, *Impacts Found Not to Be Significant*, incorrectly state that impacts LU-1 and LU-3 are less than significant, based on the commentator's view that the 2012 Modified Project "could divide an established community" and "will divide an established habitat community and will introduce housing and development in an area which has been largely undeveloped" and "will conflict with a habitat conservation plan" and "requires relocation of an established wildlife corridor." First, it is important to acknowledge the fact that the 2011 Approved Project is the baseline for the analysis of the impacts of the 2012 Modified Project. See Topical Response 2, Baseline. The impacts of developing the Proposed Project Site and the Approved Project Site have already been analyzed in the 2011 Certified EIR.

As explained in Section 5.7, *Land Use*, of the DSSEIR, the Initial Study determined that impacts LU-1 and LU-3 for the 2012 Modified Project would be less than significant as compared to the 2011 Approved Project, and Chapter 8 explains the City's reasoning supporting this determination. Neither the 2011 Approved Project nor the 2012 Modified Project will divide an established community because there are currently no residents living within Combined PA 51. Since inclusion of the Habitat Preserve is consistent with the adopted NCCP/HCP, the 2011 Certified EIR concluded that the 2011 Approved Project would not result in any impact to any NCCP or HCP. Since the 2012 Modified Project would not develop any NCCP/HCP areas that were not already identified for development in the 2011 Approved Project, the 2012 Modified Project also

would not result in any impact to any NCCP or HCP. Moreover, the commentator incorrectly asserts that the 2012 Modified Project conflicts with a habitat conservation plan and requires relocation of an established wildlife corridor. The WLC Plan includes a discussion of the history and development of the wildlife corridor feature. Note that the NCCP/HCP did not contemplate any linkage or use areas within the property: "The Parties understand and agree that the NCCP/HCP does not designate any acreage within MCAS El Toro as a Special Linkage Area or Existing Use Area. The Parties further understand that they do not anticipate that any Special Linkage Areas or Existing Use Areas will be designated at MCAS El Toro at any time in the future, including, but not limited to, during the reuse planning process." Implementation Agreement regarding the Natural Community Conservation Plan for the Central/Coastal Orange County Subregion of the Coastal Sage Scrub Natural Community Conservation Program (1996), § 6.1(g).

b. The 2012 Modified Project's consistency with each of the General Plan Objectives, including those enumerated by the commentator, is fully explained in Section 5.7 of the DSSEIR. In summary, as stated in Table 5.7-1, the Subdivision Maps for the 2012 Modified Project will detail its distinctive features, as did the maps for the 2011 Approved Project. The 2012 Modified Project allows for development of 3,364,000 square feet of Medical and Science uses and 1,318,200 square feet of Multi-Use, 220,000 square feet of Community Commercial and the 8.1 TTOD zone conditionally allows for the development of manufacturing and industrial uses. The portion of the consistency analysis for General Plan Objective A-4 quoted by the commentator is only a small part of the extensive analysis contained in Table 5.7-1. With respect to Objectives B-1 and B-2, the SSEIR fully discusses how the 2012 Modified Project is consistent with those objectives. The commentator may disagree with the SSEIR's conclusion, but the SSEIR contains substantial evidence in support of its position. With respect to the LOS "E" policy, refer to Response A15-61. This policy is already part of the General Plan; it is not new text, but rather modified text. The revisions would allow for intersections within a small area along Marine Way to be considered for LOS "E" acceptability. See Topical Response 2, Baseline.

A16-31

a. The Initial Study and the SSEIR (see Chapter 8, *Impacts Found Not to Be Significant*) determined that the changes proposed by the 2012 Modified Project would not result in significant impacts as compared to the impacts of the 2011 Approved Project analyzed in the 2011 Certified EIR. As such, there was no reason to repeat the analysis of these impacts included in the 2011 Certified EIR in the SSEIR. Moreover, the airstrip at the former MCAS has not been in operation for 14 years, as the air station officially closed in July 1999 (see SSEIR, Section 5.5, p. 5.5-3).

b. The 2012 Modified Project includes as project features all of the noise mitigation measures adopted as part of the 2011 Approved Project and its associated MMRP, and it is these measures that will ensure, where necessary, that the 2012

Modified Project will have less than significant noise impacts. The City's Standard Condition 3.5, included in the SSEIR as PPP 8-2 simply confirms that the mitigation measures have been implemented and have operated as expected to reduce the noise levels to the standards imposed by City codes, as discussed in Section 5.8 of the SSEIR. This approach has been approved by CEQA case law (see, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 418).

c. See Topical Response 2, Baseline.

A16-32 The analyses in Section 5.9 are regional not site specific, for example, Section 5.9 assesses the jobs/housing ratio in Irvine and in Orange County. As analyzed in the DSSEIR, the 2012 Modified Project, with its increase in residences as compared to the 2011 Approved Project, improves that ratio most particularly in Irvine, which is jobs-rich. Therefore, the Project's impact on the Population/Housing is positive and not adverse. Moreover, population generated by the 2012 Modified Project is consistent with the overall growth projections for the City of Irvine and for the region based on SCAG forecasts.

A16-33

a. See Topical Response 2, Baseline.

b. As discussed in Response to Comment A16-28 c, above, the SSEIR recognizes that a small portion of the Proposed Project Site is within the VHFHZ.

c. Section 5.10.1 does discuss a Secured Fire Protection Services Agreement, PPP 10-4. Pursuant to City's Standard Condition A.15, the Applicant has entered into such an agreement with OCFA.

A16-34 Dedications under the ARDA are contractual arrangements subject to the discretion of the applicant and the City, not mitigations. Moreover, the SSEIR has concluded that the 2012 Modified Project will not have a significant impact on fire services; consequently, there is no significant impact on fire services requiring mitigation.

A16-35 The commentator misunderstands the language, quoted in the comment. The applicant has entered into a mitigation agreement with IUSD, which includes provisions for construction of a high school to serve residents of the Proposed Project Site and to serve residents of surrounding development. This is the meaning of the quoted language, not that residents of the Proposed Project Site would be attending schools outside of the Proposed Project Site within IUSD. The Mitigation Agreement also includes for provision of K-8 facilities on the Proposed Project Site to serve the residents of the Proposed Project Site. With respect to SVUSD, the applicant is satisfying its mitigation requirements through the payment of SB 50 fees.

A16-36 The SSEIR concludes that the 2012 Modified Project will have a less than significant impact on libraries; therefore, there is no need for any mitigation measure or fee to ensure that its impact will be less than significant.

A16-37 See Response A16-33a, above, and Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR.

A16-38

a. See Topical Response 2, Baseline.

b. The City's regulations regarding dedication and construction of parks ensure proper phasing. Irvine Municipal Code section 5-5-1004, requires that parkland is dedicated at the time of subdivision. Irvine Municipal Code section 5-5-1001 requires that the dedication occur as a condition of a tentative map. The conditions of approval for subdivision maps set forth the phasing requirement for parks, to ensure that they are provided as residential units are developed and the demand is created.

c. See Topical Response 1, Project Description.

A16-39 As discussed in Response A16-20, the Project Description will be revised. The commentator also asserts that the SSEIR "limits the nature and extent of the project to be analyzed." This comment is unclear, but to the extent that this comment refers to the optional conversion, that topic is addressed in Response A10-4.

A16-40 See Topical Response 2, Baseline.

A16-41 See Topical Response 2, Baseline.

A16-42 The commentator makes general comments regarding NITM. The comment is noted, and no further response is necessary.

A16-43

a. DSSEIR tables 5.12.1.7 to 5.12.1.9 are impact location summaries for 2030 conditions. Existing LOS is discussed earlier in the DSSEIR Transportation and Traffic section, and existing intersection LOS values are summarized in DSSEIR table 5.12-3. LOS "E" is further discussed in Responses A15-61 and A16-30b.

The commentator provides commentary regarding some existing roadway deficiencies. A complete analysis of the existing conditions is located in Chapter 4 of the Traffic Impact Analysis.

b. The justification for the SSEIR's conclusions that impacts T-3, T-4, and T-5 are less than significant are included in the Initial Study (Appendix A to the DSSEIR) and in Chapter 8, *Impacts Found Not to Be Significant, of the SSEIR*. The 2012 Modified Project does not propose use of site as an airfield. Therefore, there are no potential impacts to air traffic.

See Topical Response 2, Baseline. The decision not to use the Proposed Project Site as an airfield occurred before the Proposed Project Site was even annexed

into the City, and well before the 2011 Approved Project was approved. If the commentator is referring to the past use as a Naval Air Station, see Section 5.5, *Hazards* of the DSSEIR.

A16-44 The SSEIR acknowledges that significant impacts could occur if jurisdictions other than the City do not implement mitigation.

A16-45 See Response A10-4.

A16-46 See Topical Response 2, Baseline. The commentator also asserts that there is an inconsistency in the significance conclusion for Traffic Impact 5.12-1. The commentator's statement is not correct; the general impact statement on page 5.12-34 is the conclusion **after** mitigation, whereas the statement on 5.12-136 is the statement **before** mitigation.

A16-47

a. Options 1 and 2 are not, as the commentator asserts, just "a part" of the 2012 Modified Project. To the extent that the commentator is unclear about those options, they are described in more detail in Response A16-20, above. To the extent that the commentator is claiming that the project is segmented, See Topical Response 1, Project Description.

b. The commentator repeats the conclusions summarized in Table 5.12-4.

c. See Topical Response 1, Project Description.

d. For the 2015, 2030 and post 2030 analysis, the Traffic Impact Analysis includes an evaluation of both roadway segments and intersections. Chapter 4 of the DSSEIR traffic impact analysis provides a comprehensive description of interim year (2015) and long range future (2030 and Post 2030) network features, including the nature and extent of each improvement, the implementation timeframe (2015, 2030 or Post 2030), and the funding source responsible. Tables 4-5 to 4-10 of the Traffic Impact Analysis provide all of the lane configuration information needed to evaluate peak hour service levels on all study area links and intersections for interim year (2015) and long range future (2030 and Post 2030) networks. Tables 10-1 to 10-3 of the Traffic Impact Analysis summarize the project impact locations and the nature and extent of mitigation improvements.

   The Executive Summary of Section 5.12, as well as to page 9-140 and Table 10-3 of the Traffic Impact Analysis contain discussions of fair-share mitigation and a summary of mitigation measures in which the 2012 Modified Project has fair share responsibility.

   The mitigation is discussed on page 5.12-124 of the DSSEIR. Physical impacts of the NITM improvements were identified and analyzed in the certified

environmental documentation prepared when the NITM Program mitigation was originally adopted in 2003.

A16-48 The DSSEIR does analyze the impacts of the deletion of the Rockfield Boulevard extension. The current alignment of Rockfield Boulevard was approved by OCTA on January 26, 2009. Prior to that, the extension of Rockfield Boulevard served as the connection between Bake Parkway and Alton Parkway. Marine Way duplicated that connection when Marine Way was added to the County MPAH and Rockfield Boulevard was reconfigured to the existing configuration. The existing configuration of Rockfield Boulevard is shown to be underutilized. Since the proposed removal of Rockfield Boulevard is part of the 2012 Modified Project, the DSSEIR analyzed the potential deletion for all impact areas, including traffic, noise, and air quality. The Traffic Impact Analysis also includes an analysis scenario which addresses the existing MPAH alignment of Rockfield Boulevard, and the Post 2030 traffic volumes served by Rockfield Boulevard extension west of Thomas is 7,400 ADT. This volume is significantly lower than the 20,000 to 30,000 ADT typically served by a primary arterial. The DSSEIR Traffic Impact Analysis provides a comprehensive assessment of traffic conditions in the event that Rockfield Boulevard is ultimately removed from the MPAH. Additional discussion about the MPAH process is set forth in Response A10-1.

A16-49 See Topical Response 2, Baseline. Significant traffic impacts remain only in the event that proposed mitigation measures are not implemented by other jurisdictions, as stated in section 5.2.7 of the DSSEIR. Otherwise, there are no unmitigatable significant traffic impacts for the 2012 Modified Project. This was also the case for the 2011 Approved Project (as stated in Impact 5.2-1).

A16-50 The Traffic section follows the same format as the other sections (and prior EIRs): the DSSEIR identifies the impact threshold, makes an impact statement, analyzes the potential impacts, and considers potential mitigation measures, then makes a conclusion before and after the mitigation. Further analysis of the mitigation measures only occurs where there would be an additional physical impact. To the extent that the commentator is questioning the potential impacts at the intersections of Jeffrey/Roosevelt and Culver/Bryan, the commentator is referred to Responses A8-31a and A8-30e, respectively.

A16-51 The commentator raises concerns about language in section 5.12.9 related to feasibility of mitigation measures. The cited language summarizes the conclusions below in that section, and is meant to refer to other jurisdictions. Page 5.12-140 of theSSEIR will be modified as follows:

> "If there are intersections <u>in other jurisdictions</u> where identified improvements may not be feasible due to cost, right-of-way concerns, or community opposition, traffic impacts could remain significant and unavoidable." (Underlined language is new language.)

A16-52 TRAN 5 and TRAN 7 state, "…the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to

establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements." The parties will determine the most appropriate method for mitigation of the impact.

A16-53 See Topical Response 2, Baseline.

A16-54 See Topical Response 2, Baseline.

A16-55

a. The 2011 Approved Project does, in fact, include all of the prior development approved at the Approved Project Site and analyzed in the 2011 Certified EIR, as discussed in Topical Response 2, Baseline in Chapter 2.0 of this FSSEIR.

b. The commentator cites *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 325 ("CBE") for his assertion that these alternatives had to be analyzed despite the Applicant's vested rights.

The language the commentator quotes from CBE was addressed to the California Supreme Court's discussion of the baseline used in the environmental analysis, not the alternatives analysis. The Supreme Court was not directing an analysis of alternatives that could not be implemented because they would violate the applicant's vested development rights; instead, the Court was asserting that the environmental analysis of the proposed project had to use as its baseline realistic environmental conditions, rather than permitted hypothetical emission levels that rarely, if ever, were reached.

In *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 138-139 (Save Tara), the California Supreme Court was addressing the question of when CEQA analysis must be undertaken in the first instance. The Court was voicing a concern that under certain circumstance some environmental effects may not be subjected to environmental review at all. Here, by contrast, significant CEQA analysis has already been undertaken for the 2011 Certified EIR; the SSEIR supplements that analysis by analyzing only the changes proposed by the 2012 Modified Project. Unlike in CBE, the 2011 SEIR and the 2012 SSEIR <u>together</u> constitute a full and complete analysis of all potential CEQA impacts. Similarly, additional alternatives that the SSEIR need include are those that would lessen the significant impacts of 2012 Modified Project changes.

c. The commentator suggests that a reasonable alternative that should have been analyzed is one that "would split the difference between the 2011 Approved Project and the [2012 Modified] Project: reduced dwelling units but greater than the 2011 [Approved] Project; increased commercial but specified uses; specify all uses in and around the [Proposed] Project Site."

In fact, the SSEIR analyzes essentially this scenario as the 2012 Modified Project scenario **without** the optional conversion, which would result in 9,500 dwelling units, rather than the full 10,700 dwelling units, and which includes greater non-residential space to residential space. Moreover, the 2011 Certified EIR has already fully analyzed the impacts of an even greater amount of specifically designated non-residential space; the SSEIR analyzes the impacts of changing the zoning of a certain amount of that non-residential space. Section 15126.6(a) of the CEQA Guidelines states, "[a]n EIR need not consider every conceivable alternative to a project." As section 151126.6(f) of the CEQA Guidelines states, "[t]he alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project." As noted in the Alternatives section, an alternative such as the one proposed by the commentator would not achieve the goal of mitigating any significant impact. The SSEIR has analyzed a reasonable range of alternatives for the changes proposed by the 2012 Modified Project, taking into consideration the significant air quality and potential traffic impacts of the 2012 Modified Project, the Applicant's vested rights to develop the 2011 Approved Project, and the analyses in the 2011 Certified EIR, including its alternatives analyses, together with the analyses of the 2012 Modified Project scenarios in the SSEIR.

The commentator asserts that there are air quality and traffic impacts that could be avoided by an alternative. However, as acknowledged both the proposed project and the no-project alternative create unavoidable adverse air quality and traffic impacts. As per Tables 5.3-7 and 5.3-8 of the DSSEIR, the emissions increases associated with the 2012 Modified Project as compared to the 2011 Approved Project do not exceed SCAQMD’s adopted thresholds of significance with the exception of VOC’s. While it may be possible to construct an alternative to reduce the marginal increase in VOC’s to below the SCAQMD threshold, air quality impacts would remain unavoidable and adverse. The significant impact regarding traffic is unchanged by reducing the number of residential units below 9,500. Therefore, there is no feasible alternative to eliminate the significant impact. Moreover, simply reducing the proposed increase in intensity by an arbitrary 25 or 50%, as the commentator suggests, would be contrary to growth plans and projections for the area, and could have other new adverse consequences.

d. The growth projected for the project area, with or without the conversion, is consistent with SCAG, OCTA, and city General Plan expectations. These projections assume an expected and desirable amount of growth in these areas. Presumably the purpose of such a reduced intensity proposal as the commentator suggests would be to lower the significant and unavoidable air quality impacts. But given these growth projections, a reduction in project intensity would not necessarily reduce overall air quality; its effect may simply be to push the otherwise expected portion of the growth into other areas which, while meeting the expected growth projections, would presumably have the same or similar air quality impacts. In fact, as shown in the Air Quality section, the project, because of its size and ability to sustain better air quality emissions mitigations, could have a lesser effect per capita than smaller or less balanced developments.

Ironically, then, pushing growth into these areas could create a proportionately greater air quality impact.

Also, as shown by the project objectives and the fact that the project has been designed to achieve SB 375 smart growth standard, as implemented by the SCAG SCS,, the project fits all the parameters of infill development located near major transit centers, which SCAG's implementation of SB 375 strongly promotes, because it better mitigates, among other things, air quality and transportation impacts. Pushing development to less compliant locations might thus be contrary to SCAG's plans and the important state mandate reflected in SB 375, and could produce greater air impacts.

A reduced intensity project might actually have other adverse impacts. As described in section 5.10, Population/Housing, a major benefit of the project will be to supply proportionately higher residential uses in the City of Irvine, which is significantly jobs rich and is well beyond standard for jobs housing balance. If, instead of converting all the planned multiuse or commercial developments to residential, the project only provided for 50% of such conversions, the positive effect on the area's jobs housing balance (which in either event will still be significantly out of balance) may be reduced, thus increasing the jobs housing imbalance.

For all these reasons, it was concluded that a reduced intensity proposal would not provide overall greater environmental benefits, and therefore the SSEIR does not further analyze such a proposal, other than in the conversion alternative.

Finally, CEQA does not require that an alternative be structured so as to "tie the applicant's hands in changing the Project." (Comment letter at page 48.)

A16-56 See Topical Response 2, Baseline. Response A16-24a, A16-25a and c, A16-26a, A16-27a, A16-28a and b, A16-30a and A16-43, above. The commentator incorrectly asserts that the SSEIR fails to consider impacts to biological resources. As summarized in Chapter 8, the Biological Technical Report for: Irvine Wildlife Corridor Relocation (Appendix N) analyzed the potential impacts of constructing the Relocated Wildlife Corridor Feature and concluded that biological resource impacts would be less than significant.

A16-57 CEQA Guideline section 15065 requires lead agencies to conclude that a project may have a significant impact on the environment, and therefore to require that an EIR (or SSEIR) be prepared for the project, where there is substantial evidence that any of the listed impacts may occur. There is no requirement that the SSEIR include a discussion of these impacts in a separate chapter or section, and, as discussed above, the SSEIR properly addresses the impacts of the changes proposed by the 2012 Modified Project as compared to the 2011 Approved Project. See Topical Response 2, Baseline. Therefore, the SSEIR addresses the impact categories listed in CEQA Guideline section 15065 only to the extent the 2012 Modified Project could create such an impact as compared to the 2011 Approved Project, and does so in the applicable sections of Chapter 5 of the SSEIR. For example, the potential for the

2012 Modified Project to result in cumulative impacts is discussed in each section of Chapter 5. As another example, to the extent that the 2012 Modified Project could result in substantial effects on human beings, those potential impacts have been analyzed in the topical sections in Chapter 5 where they may occur, such as Air Quality, Hazards and Hazardous Materials, etc.

A16-58 The SSEIR properly analyzes the changes proposed by the 2012 Modified Project as compared to the 2011 Approved Project, see Topical Response 2, Baseline, and has not "piecemealed" the analyses, as discussed in Topical Response 1, Project Description.

A16-59 The SSEIR properly analyzes the changes proposed by the 2012 Modified Project as compared to the 2011 Approved Project, see Topical Response 2, Baseline, and has not "piecemealed" the analyses, as discussed in Topical Response 1, Project Description. With respect to the comments regarding alternatives and mandatory findings, see Responses A16-55 and A16-56, above.

LETTER A17 – Laguna Greenbelt, Inc. (23 pages)

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September 7, 2012

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Re: Heritage Fields Project 2012 General Plan Amendment and Zone Change Second Draft Second Supplemental Environmental Impact Report

Dear Mr. Curtis:

We submit this letter on behalf of our client, Laguna Greenbelt, Inc. to comment on the Draft Second Supplemental Environmental Impact Report ("DSSEIR") recently released by the City of Irvine ("City") for a General Plan Amendment and Zone Change for the Heritage Fields Project ("Project"). The Natural Resources Defense Council, Endangered Habitats League, and Friends of Harbors, Beaches, and Parks join in these comments. This letter was prepared with assistance from Elisabeth Brown, PhD, biologist and President of Laguna Greenbelt, Inc., and Terrell Watt, AICP. Their biographies are attached. A17-1

Laguna Greenbelt, Inc. has a 44-year history of land preservation advocacy, especially in the coastal region near the City of Laguna Beach. Since the mid-1990s, Laguna Greenbelt, Inc. has been the major advocate for a planned wildlife corridor in central Orange County to connect 22,000-plus acres of natural habitat in and around Laguna Beach (the Laguna Greenbelt) with the larger protected open spaces of the Cleveland National Forest.

The Natural Resources Defense Council ("NRDC") is a national nonprofit organization of scientists, lawyers, and environmental specialists dedicated to protecting public health and the environment. NRDC has had a southern California office for more than twenty years, during which it has advocated for cleaner air and water and preservation of open space and wildlands throughout the region. Since 1990, protecting and ensuring adequate critical habitat for the federally listed coastal California gnatcatcher has been a top priority for NRDC.

The Endangered Habitats League ("EHL") is a California non-profit corporation dedicated to the protection of the diverse ecosystems of Southern California and to sensitive and sustainable land use for the benefit of all the region's inhabitants. Beginning in 1991, EHL has participated in habitat planning programs in Orange County, including Natural Community Conservation Planning. A17-1 cont'd.

Friends of Harbors, Beaches and Parks ("FHBP") was incorporated in 1997 to promote, protect, and enhance the harbors, beaches, parks, trails, open spaces, natural preserves, and historical sites in Orange County. Its mission is carried out primarily through its Green Vision and Map showing natural parkland and open spaces, particularly highlighting areas needed for wildlife corridors and connectivity. This corridor between the central and coastal habitat areas is essential to the maintenance of Orange County's ecological heritage and has always been a priority for FHBP.

As a preliminary matter, Laguna Greenbelt, Inc. has been extremely frustrated to not be involved in the City's efforts to seek public comment on and involvement in the review of this DSSEIR. While it appears that the City held a scoping session on this Project (DSSEIR at 2-3), Laguna Greenbelt, Inc. was not made aware of the session or invited to comment on the scope of the SSEIR, even though the City was aware of the organization's demonstrated interest in the proposed wildlife corridor. Laguna Greenbelt, Inc. commented on the 2011 Draft Supplemental EIR for this Project and other related documents and has met with City Staff, Mayor Larry Agran, Orange County Great Park staff, and The Irvine Company beginning in at least 2002 regarding planning of the wildlife corridor. This failure prevented Laguna Greenbelt, Inc. from providing its concerns about the wildlife corridor alignment and adjacent land uses at an early stage of planning. A17-2

In addition, the City has made it difficult to obtain the relevant documents necessary to adequately review this DSSEIR. While the DSSEIR is available on the City's website, the underlying documents, including the 2011 Supplemental Environmental Impact Report ("2011 SEIR"), the 2003 Environmental Impact Report ("2003 EIR"), the A17-3

development agreements, and the various wildlife corridor planning documents, are available only in electronic format via a special request to the City.[1] The cumbersome process of obtaining these documents has severely limited the public's ability to initiate a review of the full scope of this Project, in violation of one of the core purposes of CEQA. *Ocean View Estates Homeowners Ass'n, Inc. v. Montecito Water Dist.*, 116 Cal. App. 4th 396, 400 (2004) ("Environmental review derives its vitality from public participation."). Moreover, the City has only partially responded to the specific requests of Laguna Greenbelt, Inc.; in particular, we are still missing copies of the Final 2011 SEIR and the 2006 Wildlife Corridor Design Concept Plan. For this reason, we reserve the right to provide additional comments on the DSSEIR once these documents are made available.

A17-3 cont'd.

The purpose of this letter is to inform the City that the DSSEIR violates the minimum standards of adequacy under the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 *et seq.* We have found a variety of deficiencies in the DSSEIR, virtually all of which tend to omit or muddle critical information. Please note that we have not reviewed the entire DSSEIR, but rather have focused our review on the impacts and other portions of the document most relevant to Laguna Greenbelt, Inc. and the other environmental organizations; namely, the relocation of the wildlife corridor. Accordingly, the omission of comments on other portions of the document should not be construed to mean that we found those portions to comply with CEQA.

A17-4

The Environmental Impact Report ("EIR") is "the heart of CEQA." *Laurel Heights Improvement Ass'n v. Regents of University of California*, 47 Cal. 3d 376, 392 (1988) (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.' Because the EIR must be certified or rejected by public officials, it is a document of accountability." *Id.* (citations omitted).

A17-5

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 the statute. *See* Pub. Res. Code § 21061 ("The purpose of an environmental impact report is to provide public agencies and the

[1] As described below, the wildlife corridor documents are not referenced in the DSSEIR, making it even more difficult for the public to be informed of all relevant issues.

public in general with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project."). The DSSEIR must be revised to correct these deficiencies and recirculated for public comment prior to any approval of the proposed Project. A17-5 cont'd.

I. The DSSEIR Fails to Acknowledge or Incorporate Existing Plans for the Approved Wildlife Corridor.

The proposed Project includes the "relocat[ion]" of a 132-acre portion of an Approved Wildlife Corridor from one portion of the Project site to another. *E.g.*, DSSEIR at 1-8. In evaluating this change, the DSSEIR relies on an implicit assumption: because the Relocated Wildlife Corridor will contain the same number of acres, it can be treated as biologically equivalent. *E.g.*, DSSEIR at 5.7-29, 3-15 to 16. This assumption is not only unsupported, as discussed in Section III, but also ignores the longstanding efforts to ensure the *Approved* Wildlife Corridor will provide a successful linkage between established habitat preserve areas in the central and coastal subareas of the Orange County Central Coastal Natural Community Conservation Plan / Habitat Conservation Plan ("NCCP/HCP"). A17-6

Since 2003, the City and its Great Park Corporation, federal, state, and local agencies, Laguna Canyon Foundation, Laguna Greenbelt, Inc., and other members of the community have further refined the wildlife corridor described in the 2003 EIR. In 2004, the City of Irvine authorized preparation of the Irvine Wildlife Corridor Plan. City staff has described this Plan as the governing document or "master plan" for all wildlife corridor planning efforts. *See, e.g.*, Wildlife Corridor 2011 Design Concept Update at 1-7.[2] The City made further refinements to the wildlife corridor in 2006, issuing the Wildlife Corridor Design Concept Plan, and in 2011, issuing the Wildlife Corridor 2011 Design Concept Update. Surprisingly, none of these documents are even referenced in the DSSEIR. A17-7

These planning documents provide specific detail about the Approved Wildlife Corridor. The Irvine Wildlife Concept Plan describes the forty-one Special Development Requirements established by the City of Irvine, with which the Great Park Corporation must comply. Irvine Wildlife Corridor Plan at 1-5; *id.* at 1-10 ("The City of Irvine will review final Wildlife Corridor designs and hold the Corporation accountable for compliance with A17-8

[2] In addition, the City of Irvine Zoning Code requires development adjacent to the Wildlife Corridor to comply with wildlife corridor edge condition treatments consistent with the Irvine Wildlife Corridor Plan. Section 9-51-6(F)(4).

this Plan."). The Irvine Wildlife Corridor Plan also establishes four specific zones within the 750-acre wildlife corridor project area: (1) the core zone, in which human activity is strictly limited; (2) the conservation zone, which provides a location for fencing and monitoring; (3) the activity zone, which allows limited compatible human activities (such as trails, golf courses, and agriculture); and (4) the encroachment zone, where development is allowed subject to certain conditions. *Id.* at 2-3. The 2006 Wildlife Corridor Design Concept Plan further refines the Corridor Plan, providing specific features, corridor designs, etc. Finally, the Wildlife Corridor 2011 Design Concept Update provides additional data related to revised hydrological conditions on site and lays out adjacent land uses following the removal of golf courses from the Project area.

A17-8 cont'd.

The DSSEIR ignores this substantial body of work. Without discussion of these documents, clarification of which provisions and conditions will apply to the Relocated Wildlife Corridor, and clear analysis of how any changed or eliminated conditions will affect the viability of the Relocated Wildlife Corridor, the DSSEIR fails as an informational document. *See Santa Clarita Org. for Planning the Env't v. County of Los Angeles*, 106 Cal. App. 4th 715, 722 (2003) (criticizing a lead agency for failing to include relevant information in an EIR). The Project, as set forth in the DSSEIR, not only takes the City back to square one in planning, but offers no timeline, funding mechanism, or set of criteria to advance the analysis of the Relocated Wildlife Corridor. The City's last-minute effort to swap the location of the corridor to accommodate additional development is not a trivial matter; instead, it threatens to undo many years of hard work to ensure that the wildlife corridor functions as a viable, and essential, link between two habitat preserve areas.

A17-9

II. **The DSSEIR Relies on a Vague and Inconsistent Project Description.**

In order for an EIR to adequately evaluate the environmental ramifications of a project, it must first comprehensively describe the project itself with sufficient detail and accuracy to permit informed decision making. CEQA Guidelines § 15124. "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*, 27 Cal. App. 4th 713, 730 (1994) (quoting *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 193 (1977)). Thus, "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *San Joaquin Raptor*, 27 Cal. App. 4th at 730 (citation omitted). An inaccurate or confusing project description renders the analysis of significant environmental impacts inherently unreliable.

A17-10

Here, the City's decision to rely on yet another supplemental environmental document makes it very difficult to parse out the current project under review. The City claims that the 2011 Approved Project—which includes the actions analyzed in the 2003

EIR, the eight subsequent addenda, and the 2011 SEIR—constitute the "baseline" for the purposes of CEQA review. Thus, the proposed Project is intended to include only those changes from the 2011 Approved Project. DSSEIR at 2-2. This choice of methodology results in a shifting project description and effectively shields the Project's impacts on the true baseline: the existing environment. A17-10 cont'd.

In particular, the plan-to-plan comparison approach leads to confusion regarding the wildlife corridor. As described above, earlier documents indicate that the wildlife corridor includes adjacent buffer areas. *E.g.*, 2003 EIR at 5.9-20; Irvine Wildlife Corridor Plan at 1-2, Figure 1-2 (stating the wildlife corridor project area, the bulk of which falls within section 2 and 3, is 750 acres); Wildlife Corridor 2011 Design Concept Update at 2-7 ("The Activity Zone is considered part of the wildlife corridor.").

In contrast, the DSSEIR states that the proposed Project relocates 132 acres of the Approved Wildlife Corridor Feature. DSSEIR at 1-9. Buffer areas are not mentioned and the applicability of the planning documents are not discussed. This omission, especially in comparison to the 2003 DSEIR, renders the project description impermissibly vague. Are the buffer areas still in place? Do they remain in their initial location adjacent to the Approved Wildlife Corridor, even though 132 acres are relocated? Do they move with the Relocated Wildlife Corridor? The DSSEIR must be revised to explain how the relocated corridor relates to the acreages, buffer zones, and corridor widths specified in the prior guiding documents. Without this information, it is impossible to analyze impacts of the proposed Project as formulated in the DSSEIR. A17-11

III. **The DSSEIR Fails to Analyze the Impacts Related to the Changed Wildlife Corridor.**

It has long been the intent of the City, as well as other agencies and community groups, to provide a functional corridor linkage between two significant habitat reserves: the Limestone-Whiting Wilderness Park to the north and Laguna Coast Wilderness Park and Crystal Cove State Park to the south. An effective linkage will "strengthen efforts to protect wildlife diversity and species persistence in the developing Orange County landscape" (Wildlife Corridor 2011 Design Concept Update at 1-4), and thus support the Orange County NCCP/HCP. This effort is crucial for the future success of important predator species, such as the Bobcat and Coyote, as well as federally listed species such as the Coastal California Gnatcatcher and Least Bell's Vireo. Irvine Wildlife Corridor Plan at 1-16 to 1-21. A17-12

The City has codified the importance of creating a successful linkage in the CEQA environmental review documents for the Heritage Fields project. As such, one objective of the Project is to "[p]rovide a biologically effective wildlife corridor that meets

the goals of the City's General Plan." DSSEIR at 3-2.[3] Mitigation Measure BIO-3 requires the City to "implement the corridor consistent with the design criteria and viability analysis" established in the 2003 EIR. *Id.* at 1-85. Moreover, as explained above, the Irvine Wildlife Corridor Plan provides specific requirements for the corridor to which the Great Park Corporation, and consequently the City, must adhere. A17-12 cont'd.

The design of the wildlife corridor also has implications under the Clean Water Act. The Army Corps of Engineers and the California Department of Fish and Game have developed Special Area Management Plan ("SAMP") policies for the El Toro Plan Area of the San Diego Creek Watershed, where the Project is located. Wildlife Corridor 2011 Design Concept Update at 1-6. The Approved Wildlife Corridor was designed specifically to comply with such policies and thus implement the policies of the federal Clean Water Act. A17-13

Thus, the Approved Wildlife Corridor, which the City has been developing for nearly a decade, was designed and evaluated to comply with this wide array of state and federal environmental laws. The proposed Project, however, simply "[r]elocates a 132-acre portion of the Approved Wildlife Corridor Feature known as Segments 2 and 3 . . . to a location adjacent to the Borrego Canyon Channel" with scant analysis of the corridor's functionality or compliance with these laws. The DSSEIR reveals the motivation behind this last-minute change: the City proposes to relocate the wildlife corridor "*in order to provide greater flexibility in developing a mixed-use community that meets the City's General Plan goals.*" DSSEIR at 3-2 (emphasis added). The purpose of this relocation is not because the new alignment better facilitates the movement of wildlife through the linkage or provides superior habitat, but to facilitate the development of up to 5,806 additional units in the Heritage Fields Project. A17-14

Despite the stated purpose of the Project—to provide a biologically effective wildlife corridor—and the importance of the wildlife corridor to regional conservation planning and other environmental goals, the DSSEIR makes no effort to determine whether this corridor is "biologically effective" or functionally equivalent to the Approved Wildlife Corridor. DSSEIR at 3-2. In contrast, the Approved Wildlife Corridor was designated based on multiple wildlife corridor feasibility studies performed in advance of the 2003 EIR. 2003 EIR at 5.9-18. A17-15

[3] For clarity, the specific goals of the City's General Plan should be identified. The Irvine Wildlife Corridor Plan states that it implements Conservation and Open Space Element Objective L-2 Biotic Resources, Objective L-8 Preservation Areas, and Objective L-9 Recreation Areas. Irvine Wildlife Corridor Plan at 1-8.

The lack of analysis in the DSSEIR violates CEQA.[4] An EIR must provide a degree of analysis and detail about environmental impacts that will enable decisionmakers to make intelligent judgments in light of the environmental consequences of their decisions. CEQA Guidelines § 15151; *Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 712 (1990). This is true even in the supplemental EIR context, where a lead agency must analyze the "incremental difference" between the prior approved project and the newly proposed project. *See Temecula Band of Luiseno Mission Indians v. Rancho California Water Dist.*, 43 Cal. App. 4th 425, 435 (1996). Here, the DSSEIR consequently must analyze the "incremental difference" between the Approved Wildlife Corridor and the Relocated Wildlife Corridor. A17-15 cont'd.

The DSSEIR, however, offers only abbreviated statements and conclusions regarding many important aspects of the Relocated Wildlife Corridor. For example:

- The DSSEIR notes that the width of the corridor—a crucial characteristic in evaluating the functionality of linkage—is "approximately 500 to 1,000 feet, with an average width of more than 600 feet." DSSEIR at 1-9. No information is given about the width of the Approved Wildlife Corridor or the other segments in this linkage, making it difficult to evaluate the comparative functionality of the Relocated Wildlife Corridor. A17-16

- The DSSEIR states that unspecified "[r]oad and/or trail crossings may cross the Relocated Wildlife Corridor Feature, but would be designed with sufficient clearance to allow for free passage of the target species while discouraging wildlife from crossing at grade." DSSEIR at 1-9. Without more information on the location and characteristics of road and trail crossings, it is difficult to tell whether "sufficient clearance" is even possible. Moreover, fencing and road crossings have already been designed for the Approved Wildlife Corridor, with a hard limit of two road crossings in Segment 2 (Irvine Wildlife Corridor Plan at 2-3). Without a similar level of detail in the DSSEIR—including the expertise of animal movements experts such as Drs. Lisa Lyren and Erin Boydston of the U.S. Geological Survey, Dr. Winston Vickers of U.C. Davis, A17-17

[4] To the extent the DSSEIR contains any analysis, it is found in Appendix N, the Biological Technical for: Irvine Wildlife Corridor Relocation. This document, while necessary to determine if development of the wildlife corridor in the alternate location will impact the biological resources currently on the Project site, contains no analysis of the functionality of the Relocated Wildlife Corridor.

and Dr. Paul Beier of University of Colorado—it is impossible to tell if the new linkage is even viable. A17-17 cont'd.

- The DSSEIR states that "[s]torm water flows from development of areas adjacent to the western side of the Relocated Wildlife Corridor may be discharged into the Relocated Wildlife Corridor Feature so long as they are first treated pursuant to applicable water quality regulatory requirements and can be introduced without requiring artificial channel stabilization." DSSEIR at 1-9. Again, however, the DSSEIR contains no analysis of the feasibility of this condition or the impacts of hydrology and water flow on the functionality of the Relocated Wildlife Corridor. This omission is glaring: the Relocated Wildlife Corridor immediately abuts a flood control channel, which has the potential to flood in wet years or after heavy rains, affecting wildlife movement. Moreover, the operation of the Borrego Creek water splitter—which provides the necessary low flow to the wildlife corridor while providing an alternative flow passage for wet years—will need modification, yet is not addressed. A17-18

- The DSSEIR states that the Relocated Wildlife Corridor "would be planted with native vegetation." DSSEIR at 1-9. However, the composition of plants is crucial for a successful, functional corridor. *See, e.g.*, Irvine Wildlife Corridor Plan at 2-27 ("The only way to ensure the success of the Corridor is to accommodate the variety of landscapes observed in nature."). A mix of upland and riparian communities is important, including a range of vegetation types, rock piles, and downed wood/brush to provide cover for smaller animals. It is not clear from the DSSEIR that the Relocated Wildlife Corridor can or will support the same level of biodiversity as the Approved Wildlife Corridor. A17-19

- The DSSEIR states that "[e]arthen berms and screening vegetation would be installed along the eastern and western edges of the Relocated Wildlife Corridor Feature as necessary to provide screening, to reduce visibility and human access in the corridor, and to reduce light spillage and ambient noise in the Corridor." DSSEIR at 1-9 to 10; *see also id* at 1-15 (Project Design Feature 10-2 states that "appropriate edge effect characteristics . . will be implemented as necessary"). These requirements, however, contain no A17-20

specifics and no analysis of their ultimate effectiveness.[5] The DSSEIR reveals a change in land use for adjacent Districts 5 and 6, which will include high density development. DSSEIR at 3-15, Figure 3-2. This new development, particularly in conjunction with other existing and planned projects, has the potential for significant light and noise pollution. *E.g.*, DSSEIR at 5.1-8 to 9. In addition, the future Marine Way will likely have to be raised in height to bridge across the SCRRA rail tracks, creating high density development "pads" between Marine Way and the Relocated Wildlife Corridor. This clear potential for land use conflicts creates doubt that the Relocated Wildlife Corridor can be designed in such a way as to assure minimal light and sound intrusion, yet the DSSEIR fails to complete this analysis. A17-20 cont'd.

The concerns raised here are echoed by the U.S. Fish and Wildlife Service in a letter submitted on the DSSEIR on August 30, 2012: "Our primary concern with the proposed Project is the increase in residential housing density and its potential to preclude the design of a biologically effective wildlife corridor. The DSSEIR includes inadequate detail to determine if a wildlife corridor can be designed to sufficiently minimize disturbances associated with surrounding land uses in the proposed location and in a manner that is biologically effective." U.S. Fish and Wildlife Letter to Mr. Barry Curtis re: Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project (August 30, 2012). A17-21

What little information is contained in the DSSEIR presents the significant possibility that the Relocated Wildlife Corridor is not functionally equivalent to the Approved Wildlife Corridor. Most importantly, it appears the proposed Project would effectively prevent the incorporation of any buffer areas adjacent to the Relocated Wildlife Corridor. The City has long stated that the land surrounding the Approved Wildlife Corridor, in contrast, would serve as a designated buffer area. 2003 EIR Figure 5.9-2 (designating conservation, activity, and encroachment zones as buffer areas); Irvine Wildlife Corridor Plan at 2-3 (prohibiting most human activity in the conservation zone buffer area, allowing complementary park, open space, and recreational uses in the activity zone buffer area, and requiring any new development in the encroachment zone to "adhere to conditions and mitigation measures reducing potential impacts to the corridor"); *id.* at 2012 (Segment 2 A17-22

[5] While the DSSEIR does analyze the light and noise impact of adjacent industrial uses on the Relocated Wildlife Corridor (DSSEIR at 5.1-8 and Appendix O), it offers only unsupported conclusions regarding the impact of noise and light from adjacent *new* development.

design objective is "to successfully integrate the corridor with the planned golf course uses on both sides"). Even when it became clear that the existing adjacent golf courses would no longer be used/available as buffers, the City indicated that buffers would still be required along the Approved Wildlife Corridor. *See* Wildlife Corridor 2011 Design Concept Update at 1-10 (despite the elimination of the golf course, "any future land use in this area will be designed to ensure compatibility with the wildlife corridor, including provision of adequate buffers").

A17-22 cont'd.

In contrast, the designation of buffer areas surrounding the Relocated Wildlife Corridor appears infeasible given its placement. To the east, the corridor abuts existing industrial development. DSSEIR Appendix O at 9. The Project proposes to zone all property along the western edge of the corridor to 8.1 (Trails and Transit Oriented Development) in order to accommodate up to 5,806 additional units. DSSEIR at 3-15, Figure 3-9. It is not clear how any buffer zones could be accommodated within this tightly developed and planned area.

A17-23

Another example of the lack of equivalency stems from fire management and fuel modification within the corridor. The DSSEIR states that the Relocated Wildlife Corridor "includes fuel modification requirements," even though the corridor itself is "not considered a high wildland fire hazard area." DSSEIR at 5.5-22. Project Design Feature 10-1 consequently allows "maintenance" of the vegetation "as needed" and requires the Orange County Fire Authority to approve planting schemes and palettes. DSSEIR at 3-34.

A17-24

The Approved Wildlife Corridor is not subject to such requirements. Indeed, the corridor planning documents expressly prohibit fuel modification in the core zone of the Approved Wildlife Corridor. *See* Irvine Wildlife Corridor Plan at 2-3; 2006 Wildlife Corridor Design Concept Plan at Section 4.1 ("Nearly all forms of activity are expressly prohibited, other than Wildlife corridor maintenance and ecological monitoring which are necessary to establish and evaluate the functionality of this [core] zone."); Wildlife Corridor 2011 Design Concept Update at 2-6 (allowing fuel modification only in the activity and encroachment zones). The justification for this prohibition is straightforward: typical fuel modification zones only contain between 30 to 70 percent native shrubs, with drastically reduced wildlife carrying capacity. In contrast, within the Approved Wildlife Corridor, habitat creation and restoration would be used to "replicate the structure, function, diversity and dynamics of a southern California ecosystem." Irvine Wildlife Corridor Plan at Figure 2-1. Subjecting the Relocated Wildlife Corridor to a fuel modification requirement is the opposite of ensuring the creation of habitat capable of sustaining a biodiverse wildlife community. *See also* U.S. Fish and Wildlife Service Letter at 2-3. The DSSEIR fails to analyze the impact of this change.

A17-25

The Approved Wildlife Corridor also has undisclosed and unanalyzed proximity advantages over the Relocated Wildlife Corridor. The approved alignment provides an additional linkage to the Agua Chinon Riparian Corridor, which could strengthen its functionality in two ways: (a) by allowing wildlife to use the Agua Chinon Riparian area as additional habitat and (b) by allowing informal dispersion into a portion of the Great Park. The Relocated Wildlife Corridor lacks this connection, but the DSSEIR fails to analyze this shortfall. A17-26 cont'd.

Finally, the Relocated Wildlife Corridor will be located directly on top of a former landfill site. DSSEIR at Figure 5-5.1. While it appears that remediation work has mostly been completed, the DSSEIR reveals that "Site 5 and the associated buffer zone surrounding it will not be available for immediate reuse activity," indicating the ongoing potential for contamination issues. DSSEIR at 5.5-20. The DSSEIR must be revised to more adequately discuss the potential impacts of this former landfill site on the Relocated Wildlife Corridor. A17-27.

IV. The DSSEIR Improperly Omits Any Discussion of the Changes to the El Toro Habitat Reserve.

The 998-acre El Toro Habitat Reserve parcel located to the northwest of the Project site is a critical component of the envisioned wildlife corridor, providing the principal linkage for wildlife between Limestone-Whiting Wilderness Park and Great Park Wildlife Corridor. For example, the Irvine Wildlife Corridor Plan states that this parcel is "an extremely important connection for the rest of the Irvine Wildlife Corridor," that the application of certain conditions on the parcel is "critical to the success of the remaining portions," and that "keeping the refuge area as natural as possible [is an] important goal[]." Irvine Wildlife Corridor Plan at 2-10 to 11. The DSSEIR refers to this parcel as a "habitat preserve" and "protected in perpetuity," and states that it "has been conveyed to the Federal Aviation Administration ('FAA'), and it is expected that it will be managed in the future by the U.S. Fish and Wildlife Service" as the El Toro National Wildlife Refuge. DSSEIR at 7-11, 8-5 (Table 8-1(f)); *see also* DSSEIR at 5.7-37[6] ("the most significant ecological areas will be preserved within the Habitat Preserve"). A17-28

The statements contained in the DSSEIR are factually incorrect. The parcel changed hands in June 2012 and is now held by the Federal Bureau of Investigation. The FBI A17-29

[6] As a minor technical matter, the text at the bottom of DSSEIR 5.7-47 appears to have been cut off.

is energetically operating several shooting ranges on the property as part of an FBI and local law enforcement training facility. It is unknown whether field activities are restricted to roadways and low-value habitat areas on the property, or whether they are also occurring in the higher-value coastal shrub. The current status of the Federal Bureau of Investigations property is unclear, with City and FBI being unable to reach a basic agreement regarding the proposed land-use and management of the property. Negotiations with the City to develop a Memorandum of Understanding to partition uses on the property appear to have broken down. A17-29 cont'd.

While the management and ultimate disposition of the property are currently outside of the control of both the City and the Project Applicant, given that additional entitlements are being sought at this time, CEQA requires an analysis of this changed circumstances as part of this EIR. *Cf. Twain Harte Homewoners Ass'n v. County of* Tuolumne, 138 Cal. App. 3d 664, 692 (1982) (finding an abuse of discretion where lead agency failed to prepare a supplemental or subsequent EIR for issues not previously evaluated). The DSSEIR's omission of this information mars a number of critical areas of analysis: A17-30

- **Wildlife Corridor:** The DSSEIR assumes that the parcel will be available as a "habitat preserve" and critical linkage in the wildlife corridor. In assessing the functionality of the Relocated Wildlife Corridor, the DSSEIR must, at a minimum, consider the parcel's uncertain long-term ownership, availability for inclusion in the corridor, and ongoing habitat value.

- **Cumulative Analysis:** At the time the 2003 EIR was certified, it was assumed that this parcel would remain largely undeveloped for future designation as a wildlife refuge, and thus it was not included in the EIR's cumulative analysis. 2003 EIR at 5.9-16. The DSSEIR must now discuss its current, more intensive use as well as any reasonably foreseeable plans for future development and analyze whether this project, together with the Project under consideration, would have any cumulative considerable impacts, including on biological resources. CEQA Guidelines §§ 15130(a), 15355(a), (b). A17-31

- **Alternatives:** One purpose of the DSSEIR is to provide a "biologically effective wildlife corridor." DSSEIR at 3-2. The change in ownership and use of the El Toro parcel significantly impacts whether the proposed Project and analyzed alternative can satisfy this purpose, yet the DSSEIR fails to include any discussion of this change. The DSSEIR must be revised to include an alternative alignment of the wildlife corridor that preserves functionality in the event the El Toro parcel cannot be permanently designated as a habitat A17-32

preserve. Pub. Res. Code § 21100(b)(4); CEQA Guidelines §§ 15126.6(a); *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1456 (2007). A17-32 cont'd.

- **Consistency Analysis**. Table 5.7-5 evaluates the Project's consistency with Orange County's Sustainable Communities Strategy. Strategy H provides that the County will "[s]upport natural land restoration and conservation and/or protection offering significant carbon mitigation potential via both sequestration and avoidance of increased emissions due to land conversion." DSSEIR at 5.7-54. In making a finding of consistency, the DSSEIR states that "[t]he 2011 Approved Project incorporates the 974-acre NCCP Habitat Preserve into the 2011 Approved Project design. The Habitat Preserve has been conveyed to the Federal Aviation Administration, with the Department of the Interior managing the land as part of the NCCP/HCP." *Id*. The current FBI ownership and management of the habitat reserve appears to compromise this consistency, yet the issue is not discussed in the DSSEIR. This modified project compliance item should be, at a minimum, revised with a detailed analysis of how City intends to address this issue. A17-33

- **Biological Resources Impacts.** The EIR finds that biological resource impacts are "not [] significant" based in part on the statement that "974-acres offsite, in Planning Area Zone 3 of Existing PA 51, have been designated as habitat preserve in accordance with Orange County Central NCCP." DSSEIR at 8-20. The Project's consistency with the Orange County Central-Coastal NCCP must be reevaluated in light of the correct information regarding the future of the El Toro Habitat Reserve. A17-34

V. **By Deferring Design of the Wildlife Corridor to a Later Process, the DSSEIR Improperly Piecemeals Environmental Analysis.**

CEQA defines a "project" as "the whole of an action, which has a potential for resulting in either a direct physical change" or "a reasonably foreseeable indirect change in the environment." CEQA Guidelines § 15378(a); *see also* CEQA Guidelines § 15378(c) (term "project" means the whole of the "activity which is being approved"). Thus, an agency must take an expansive view of any particular project as it conducts the environmental review for that project. *See McQueen v. Bd. of Directors*, 202 Cal. App. 3d 1136, 1143 (1988) (term "project" is interpreted so as to "maximize protection of the environment"). A17-35

Because the statute requires study of "the whole of an action," CEQA prohibits public agencies from "subdivid[ing] a single project into smaller individual subprojects in

order to avoid the responsibility of considering the environmental impact of the project as a whole." *Orinda Assn. v. Bd. of Supervisors*, 182 Cal. App. 3d 1145, 1171 (1986). CEQA "mandates 'that environmental considerations do not become submerged by chopping a large project into many little ones'" which, individually, may have lesser environmental effects but which together may be "disastrous." *City of Santee v. County of San Diego*, 214 Cal. App. 3d 1438, 1452 (1989) (citation omitted).

In the 2003 EIR, the City claimed that it could leave the development of the wildlife corridor to a future process. 2003 EIR at 5.9-22. To the extent the DSSEIR implicitly relies on the similar reasoning—that the vague description of the Relocated Wildlife Corridor is permissible now because additional details will be developed in a later process—it commits impermissible piecemealing of the Project and the requisite analysis. Because the Relocated Wildlife Corridor is identified as part of this Project (DSSEIR at 3-15 to 16, Figure 3-5; *see also* 2003 EIR at 5.9-16 (noting that the wildlife corridor is part of the proposed project)), development of the specific aspects of the Wildlife Corridor and an analysis of its functionality and impacts must be undertaken at this time.

A17-35 cont'd.

VI. **The City Failed to Analyze Impacts to All Affected Open Space.**

The proposed Project will add up to 14,274 additional people into a relatively confined area. DSSEIR at 5.9-10. While the DSSEIR purports to analyze the impacts of these additional residents on "existing recreational amenities and/or facilities," (DSSEIR at 5.11-1 to 14), this analysis omits open space areas that will be impacted by the proposed Project. This omission violates CEQA. *City of Hayward v. Bd. of Trustees*, 207 Cal. App. 4th 446, 470 (2012) (holding that a lead agency must analyze impacts to nearby parkland by determining predicted use).

A17-36

In particular, the DSSEIR does not consider impacts to Laguna Coast Wilderness Park and Aliso and Wood Canyon Wilderness Park, both of which have current heavy traffic from Irvine residents seeking to hike or bike. While the City of Irvine has wilderness parks, these have significantly limited access, which consequently pushes recreational users into the Laguna Greenbelt. Even though the Great Park will provide nearby recreational amenities, *City of Hayward* counsels that a lead agency cannot merely assume that nearby amenities will decrease demand elsewhere, particularly for a different kind of recreational experience. 207 Cal. App. 4th at 470. The SSEIR must be revised provide concrete analysis of impacts to all potentially affected open space.

VII. **The City Is Required to Prepare a Subsequent EIR, Rather Than a Supplemental EIR.**

Section 15163(a)(2) of the CEQA Guidelines provide that a lead agency can prepare a supplemental, rather than a subsequent, EIR in limited circumstances; namely, when "[o]nly minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation."

This standard has not been met here. For example, the changed location of the wildlife corridor and the deletion of the buffers are each significant departures in and of themselves. In addition, the Project proposes a major change in residential density, more than doubling the total number of permitted units to 10,700. DSSEIR at 3-21. This shift in density implicates nearly all impacts areas—from air quality and traffic to recreational uses and other public services. While these areas are not the focus of our comments, these changes indicate that a subsequent EIR is required. As a leading CEQA treatise states, a supplemental EIR is appropriate only when the "previous EIR can be made adequate by additions or changes that respond to a *limited set of issues*." Kostka & Zischke, Practice under the California Environmental Quality Act, § 19.6 (emphasis added). A17-37

The failure of the City to prepare a subsequent EIR has negative consequences. As described above, Laguna Greenbelt, Inc. and other members of the public have had a difficult time accessing the previous EIRs, addenda, SEIRs, and other documents necessary to understand the DSSEIR. By preparing a subsequent, rather than a supplemental, EIR, the City can ensure that the public has access to all relevant information.

VIII. **The EIR Must Be Recirculated.**

Under California law, the present DSSEIR cannot properly form the basis of a final SSEIR. CEQA and the CEQA Guidelines describe the circumstances which require recirculation of any draft EIR. Such circumstances include (1) adding significant new information to the EIR after public notice is given of the availability of the EIR but before certification, or (2) where the draft EIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. CEQA Guidelines § 15088.5. "Significant new information" includes the identification of new significant impacts; a substantial increase in the severity of impacts; and the identification of a new feasible project alternative or mitigation measure that could clearly lessen the project's significant impacts but the project's proponent declines to adopt it. *Id.* A17-38

The City cannot make a responsible decision about this Project without further environmental review. An EIR serves to inform the public of the environmental

consequences of a project to promote the accountability of decision makers. The public cannot come to its own conclusions; nor can it determine whether officials made the right decisions, without accurate, up-to-date information about the Project's environmental consequences. In light of the issues identified above, the EIR for the Project provides information that is neither accurate nor up-to-date. In order to resolve these issues, the new EIR would necessarily include substantial new information that triggers CEQA's recirculation request. Thus any decision to approve the proposed Project without recirculating a new DSSEIR or draft subsequent EIR would violate CEQA.

A17-38 cont'd.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Richard S. Taylor
Sara A. Clark

Attachments:

- Biographies/CVs of Elisabeth Brown and Terrell Watt

432902.1

Relevant Biographical Information for Elisabeth M. Brown, Ph.D

Present occupation:

Biologist
Environmental Consultant
Science Writer, Nature Columnist
Author, local field guides, self-guiding nature trails

Academic history:

Ph.D, Biology, UC Irvine, 1976
M.A, Zoology, UC Berkeley, 1966
A.B., Letters & Science, UC Berkeley, 1963
Smith College, 1959-1961

Ongoing Activities:

Regional Vice-President, Planning & Conservation League, 1998-
Board member, Nature Reserve of Orange County, 1997-
Part-Time Faculty, Saddleback College, 1995-
Columnist, weekly newspapers, Laguna Beach: local natural history, 1992-
Vice-President, Laguna Canyon Foundation, 1990-
President, The Laguna Greenbelt, Inc., 1985-
Director, The Laguna Greenbelt, Inc., 1982-

Past Activities:

Author, OC Back Country Field Guide, 2007
Lecturer in Physical Science, UC Irvine, 2000-2005
Boardmember, Orange County Natural History Museum, 1995-2005
Chair, Coastal Greenbelt Authority, 1994-1995; 2002-2011
Member, Coastal Greenbelt Authority, 1991-2011
Docent Coordinator, Laguna Coast Wilderness Park, 1992-
Lecturer in Environmental Biology, Rio Hondo College, 1993
Coordinator, California Science Project at UCI, 1991-92
Founder, Public Access Program, Laguna Coast Wilderness Park, 1992
Lecturer in Environmental Biology, Cypress College, 1992
Member, Laguna Laurel Advisory Group, 1990
Secretary, Orange County Foundation for Consensus, 1989-1990
Preparator, Orange County Science Olympiad, 1985-1997
Laguna Beach Planning Commissioner, 1982-1988

Consensus Group member, Inyo National Forest Plan, 7/87-8/87
Adjunct Professor of Biology, Whittier College, 1981-1984
Chair, Laguna Beach Unified School District Science-Math Task Force, 1983-6
Laguna Beach Local Coastal Plan Task Force, 1981
Laguna Beach General Plan Revision Committee, 1980-1982
Lecturer in Social Ecology, UC Irvine, 1976, 1978, 1979
Judge, Orange County, State, or International Science Fairs, 1978-1998
Chair, Lecture Program, NABT National Convention, 1977

Research Activities:

Pandora Moth egg parasite and life cycle research, Mammoth Lakes, 1980-2010
Hatching Behavior in California Quail and Japanese Quail, 1970-76
Respiration in Neurulating Amphibian Eggs, 1964-66

Teaching experience:

Includes courses in Human Evolution, Human Ecology, Environmental Science, Technical Writing and Vertebrate Embryology at several SoCal colleges and UCI.

The Laguna Greenbelt, Inc., is a private, non-profit, environmental organization which has been working since 1968 to create an open space greenbelt roughly located around the city of Laguna Beach. The Laguna Greenbelt currently stands at about 22,000 acres.

Laguna Greenbelt, Inc. experience includes review and response to EIRs and other planning documents; extensive public hearing attendance and testimony before local, regional and state agencies; tracking of projects through the public hearing process; working with various agencies' staff; coordination with other citizens' groups; attendance on working groups and other planning bodies; working with a lobbyist in Sacramento; development and presentation of position papers; newsletter production; presentation of slideshows/talks to community and business groups; coordination of deer watering program; creation of brochures for self-guiding nature trails; creation of brochures for local residents; public education about local natural history; fundraising; grantwriting; mailing list management, bookkeeping and IRS reporting for a 501(c)(3).

In 1991, GB Inc. received a grant from the California Coastal Conservancy to prepare a restoration/rehabilitation plan for the three Laguna Lakes in Laguna Canyon. An advisory group consisting of representatives of the Coastal Conservancy, GB Inc., Laguna Beach, Orange County EMA, and The Irvine Co. wrote the work program, selected consultants, and oversaw the work. GB Inc. was responsible for overall administration and primary direction for the consultants. I was the GB representative to the Advisory Board, and also performed the water sampling called for in the grant.

The restoration plan was completed in the spring of 1994, and a subsequent grant to Orange County to carry out the work was approved by the Conservancy board in May, 1994.

The Laguna Greenbelt docent program began in the fall of 1992, in anticipation of the need for guided tours into Laguna Coast Wilderness Park. I obtained a grant to help underwrite the training program, which has now been enlarged into a joint program with The Nature Conservancy, Crystal Cove State Park, and the County of Orange. An earlier public access program, the Jim Dilley Preserve interpretive program, includes a mobile wagon with nature displays, 2 nature trails and brochure, and a regular program of open days. I created this program in the name of GB Inc. for Laguna Beach, and it is now part of the docent program. Since late 1987 we have staffed the Preserve on open days, and supplied trail maps, brochures and information about the natural history of the area. The 1 1/2-mile long nature trail was opened in 1988, and has served thousands of visitors. An additional nature trail by a natural lake opened in June, 1995.

In 1993, GB Inc. received an Innovation Grant from the World Wildlife Fund to develop a public information program in collaboration with Laguna Beach Open Space Commission for the residents of Laguna Beach who live on the edge of the Laguna Greenbelt wilderness. The program includes a set of brochures which address topics of interest to wildlands edge residents, such as coping with wildlife, fire-safe landscaping, creating wildlife gardens, pet safety, trail etiquette, etc. Extensive backup materials (videos, books, etc.) are available at the local library, and presentations were made to homeowner associations, governing boards or local government officials, as appropriate, to introduce the program. I wrote the grant application, assembled the materials, and authored most of the content of the brochures.

The Nature Reserve of Orange County is a non-profit created in late 1996 to implement the NCCP in Orange County. The Reserve is the result of conservation planning at the natural community level by federal and state wildlife agencies, county and city governments, major landowners and the environmental community. I joined the board as a public member in 1997. I wrote the reserve brochure, "Welcome to the Nature Reserve of Orange County," and have served or currently serve on the following committees: acquisition, outreach, and executive/financial.

The Coastal Greenbelt Authority is a cooperative body created in 1991 to manage about 5,000 acres of the Laguna Greenbelt known as Laguna Coast Wilderness Park. The four members are the City of Laguna Beach, Orange County, a public member, and a representative from four Laguna Beach environmental organizations which is myself. The City of Irvine and the State Dept. of Fish & Game are ex-officio members. It is anticipated that eventually the land area under Authority control will include the Irvine Co. Southern Reserve acreage. The idea of bringing all the Laguna Greenbelt lands under common management has been my most important goal short of the

preservation of the land itself. Only with the entire Greenbelt under common control can we properly allocate activities and balance recreation with habitat preservation.

The Laguna Canyon Foundation was created in 1990 to organize a private capital campaign to help fund the purchase of the Laguna Laurel parcel, the largest remaining parcel to be acquired in the Laguna Greenbelt. As it turns out, the Foundation is involved in all aspects of fundraising, including lobbying for public funds. My activities include grantwriting (especially technical justification and biological description sections), liaison with resources agency biologists, creation of descriptive material, and leading guided tours of the property.

My monthly column for a local weekly newspaper introduces ecological or biological concepts and relates them to recent animal news stories or local problems in the Laguna Greenbelt.

Orange County Foundation for Consensus was a group of business and community representatives formed to work on infrastructure and other county issues. Laguna Greenbelt representatives joined and brought other environmental representatives into the group. Experience included drafting legislation for a proposed Orange County Public Land Trust and bond act.

Laguna Beach Planning Commission experience included General Plan implementation, drafting ordinances, making findings of General Plan conformity, Specific Plan reviews, recommendation of zoning changes, review of CEQA documents such as EIRs, and review of the city's Capital Improvements budget. Attended CEQA and Planning Commissioner workshops.

Environmental Analysts is an umbrella group created by my ex-husband and myself in the mid 1980's to facilitate the transmittal of expert comments on EIRs and similar documents by biologists and other professionals. As EA we personally have monitored and commented at some length on the 1987 Inyo Forest Plan and DEIS, the 1988 Sherwin Ski Area EIS, the 1989 Doe Ridge Golf Course EIS, the 1989 Mono Basin National Forest Scenic Area DCMP and DEIS, the 1993 Mono Lake Level EIR, the 1995 Preliminary Mammoth to June Ecosystem Analysis, and various other Forest Service projects (PITs, EAs and the like).

Awards:

2011: County of Orange Proclamation: 20 years service on Coastal Greenbelt Authority
2011: Villager of the Year, Village Laguna
2011: County of Orange recognition for above award.
2001: Laguna Beach AAUW Woman of Achievement/Environment
1996: Sea & Sage Audubon Conservation Award

1995: OC Chapter American Red Cross, Outstanding Woman in Environment
1994: Soroptimist Int'l of Irvine, Woman of Distinction in Environment
1994: California State Senate, Certification of Recognition for above award
1991: Orange County Board of Supervisors, Certificate of Appreciation
1991: South Orange County YWCA, Woman of Achievement in Environment

Terrell Watt, AICP
Terrell Watt Planning Consultants
1937 Filbert Street - San Francisco, CA 94123
terrywatt@att.net **Office: 415-563-0543** **Cell: 415-377-6280**

Since 1989, Terrell "Terry" Watt, AICP, has owned Terrell Watt Planning Consultants. Ms. Watt's firm specializes in planning and implementation efforts focused on regionally-significant projects that promote resource conservation and sustainable development patterns and practices. Prior to forming her own consulting group, she was the staff planning expert with the environmental and land use law firm Shute, Mihaly & Weinberger. She is an expert in general and specific planning and zoning, open space and agricultural land conservation strategies and environmental compliance. Her skills also include facilitation, public outreach, project management and negotiation. Terry is a frequent presenter at regional, national and statewide workshops and symposiums on general plans and sustainability best practices and case studies. She holds a Masters Degree in City and Regional Plan from the University of Southern California and a Bachelor's Degree in Urban Studies from Stanford University.

TERRELL WATT PLANNING CONSULTANTS (1989 to the present). Planning Consulting Firm Owner

Terry works with a wide variety of clients throughout California including non-profit organizations, government agencies and foundations. Her recent projects and roles include:

- Planning Consultant to California Attorney General's Office - Environment Section focusing on climate change, CEQA and general plans. (2007-2010).
- Governor's Liaison to the 22 Million Acre Desert Renewable Energy Conservation Plan planning process (2012).
- Project Manager for the Marin Countywide Plan Update and its Environmental Impact Report This award winning plan and its EIR contain leading edge sustainability policies and implementation measures. (2004 – 2007).
- Participant on the advisory panel to the California Statewide Infill Study project conducted by UC Berkeley's Institute for Urban and Regional Development and sponsored by BTH, HCD and Caltrans. The outcome of this project is a California Infill Parcel locator tool to pinpoint sites for infill throughout California.
- Project coordinator for the California Infill Estimation Methodology Project funded by an Environmental Justice Grant from Caltrans and jointly sponsored by the City of Los Angeles, County of Los Angeles and Environment Now.
- Project coordinator for an environmental coalition to secure an Agreement with the Tejon Ranch Company for the permanent protection of 240,000 acres (90%) of the Tejon Ranch.
- Project manager of a 30-member environmental coalition that through a unique partnership with the Orange County Transportation Authority and state and federal wildlife agencies garnered significant funding for programmatic environmental mitigation (conservation land acquisition and stewardship) in Measure M2, Orange County Transportation Sales Tax.

PROFESSIONAL MEMBERSHIPS AND BOARDS

- Lambda Alpha International - Golden Gate Chapter
- American Institute of Certified Planners (AICP)
- American Planning Association (APA)
- Tahoe Fund Board Member
- American Farmland Trust - CA Stewardship Council

AWARDS

- State and National APA Awards for Marin County General Plan
- Carla Bard Award for Individual Achievement
- Environment Now Award for Measure M Support
- CA State Association of Counties Distinguished Service Award

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A17. Response to Comments from Richard S. Taylor and Sara A. Clark of Shute, Mihaly & Weinberger LLP for Laguna Greenbelt, Inc., dated September 7, 2012.

A17-1 The commentator provides general remarks about its organization and related organizations. No response is necessary.

A17-2 The commentator states it was not provided with proper notification of the preparation or circulation of the DSSEIR. On June 20, 2012, the City received a request from the president of Laguna Greenbelt to be notified of any future scoping meetings or hearing dealing with the Great Park Neighborhoods project. A copy of the Notice of Completion/Notice of Availability was mailed to Laguna Greenbelt on July 10, 2012. The City also met with representatives from Laguna Greenbelt on August 8, 2012 to discuss their concerns. Additional notices such as the Planning Commission Study Session on October 3, 2013 as well as public hearing notices have been mailed to Laguna Greenbelt

A17-3 The commentator states that the process of obtaining documents from the City is cumbersome and limited their review. They further state that they were unable to obtain copies of the 2011 SEIR and 2006 Wildlife Corridor Design Concept Plans from the City. On August 16th, 2012, the City Clerk Office electronically provided copies of the 2003 OCGP FEIR as requested. Subsequently, there were additional requests to obtain a copy of the 2011 SEIR and 2006 Wildlife Corridor Design Concept Plan, which was provided to Terri Watt on August 28th, 2012. In addition, other documents such as the Development Agreement and ARDA were also made available upon their request.

A17-4 The commentator states that it has concerns regarding the adequacy of the DSSEIR relative to CEQA. This comment is general in nature and no response is necessary.

A17-5 The commentator provides statements regarding the purpose of CEQA. These comments are general in nature and no response is necessary.

A17-6 The commentator questions whether the Relocated WLCF (WLCF) will provide a successful linkage between the established habitat preserve areas in the central and coastal subareas of the Orange County Central Coastal Natural Community Conservation Plan/ Habitat Conservation Plan ("NCCP/HCP"). In coordination with the City of Irvine, the Orange County Great Park Corporation, and conservation groups including representatives of the commentator, the applicant prepared a Wildlife Corridor Plan for the Relocated WLCF, included in Appendix C of the FSSEIR. The WLC Plan and the Relocated WLCF were also peer reviewed by a panel of experts (“Peer Reviewers”) chosen by the commentator. The commentator reviewed the WLC Plan and concurred in the Peer Reviewers’ conclusion that the Relocated WLCF would be a biologically effective wildlife corridor that accommodates movement of all four focal species from inland habitats south through the project area to the edge of Interstate-5, thereby contributing to a successful linkage between the habitat preserve areas in the central and coastal subareas of the NCCP/HCP.

A17-7 The commentator discusses prior planning efforts undertaken for the WLCF. These efforts, including the documents referred to by the commentator, are described in Section II of WLC Plan.

A17-8 The commentator describes features of prior versions of the WLC Plan. These comments are general in nature and no response is necessary.

A17-9 The commentator has stated that the "DSSEIR should discuss how the previous draft studies will apply to the Relocated WLCF, and claims that the 2012 Modified Project as set forth in the DSSEIR, not only takes the City back to square one in planning, but offers no timeline, funding mechanism, or set of criteria to advance the analysis of the Relocated WLCF." As discussed in Section II of the WLC Plan, the planning for the wildlife corridor has evolved over time as additional information regarding the constraints has become available and as the land planning has become more detailed. The WLC Plan analyzes and prescribes specific project development features ("PDFs") and other measures to avoid and minimize noise, light, visual and human intrusion and to minimize vegetation management activities, as described in the Preliminary Fuel Management Plan attached as Appendix E of the WLC Plan ("Vegetation Management"), and other maintenance-related disturbances within the Relocated WLCF. These PDFs and other measures incorporated into the WLC Plan address the same potential adverse impacts on the Relocated WLCF that were addressed by the SDRs and activity zones specified in prior wildlife corridor plans. The Peer Reviewers concluded that the implementation of the WLC Plan, including the PDFs and other measures to minimize human intrusion, edge effects, and vegetative impacts, would result in a biologically effective wildlife corridor. See WLC Plan, Appendix D. Adjacent development will be reviewed by the City for consistency with the PDFs for edge effects and other applicable WLC Plan measures.

It is important to note that the Relocated WLCF is a "project feature," and its implementation is not required to avoid or mitigate project impacts. The project design feature, the 2011 Certified EIR, and CEQA do not require that the corridor be implemented in a particular timeframe. The timeline for construction of the WLCF is anticipated to occur concurrently with, or shortly after adjacent development. Exact funding mechanisms for Relocated WLCF construction, establishment, management and monitoring remain to be specified, but could consist of one or more funding sources, including OCGP operating funds, City funding sources, HFET monetary and in-kind contributions, future Community Facilities District funding streams, and other potential funding sources.

A17-10 The commentator raises questions regarding the Project Description. The commentator is referred to Hawkins Response A16-11 and Topical Response 1, Project Description. The commentator also raises questions regarding the baseline. The commentator is referred to Topical Response 2, Baseline. The Peer Reviewers' concluded that the WLC Plan sets forth a sufficiently detailed description of the Relocated WLCF to provide an adequate basis for determining that the corridor will be biologically effective. Further, the City has determined, as the land use regulatory authority, that the WLC Plan sets forth a sufficiently detailed description of the Relocated WLCF to assess consistency and adequacy of future implementation and

construction plans for the corridor itself, and adjacent development will be reviewed by the City for consistency with the PDFs for edge effects and other applicable WLC Plan measures as necessary to assure implementation of a biologically effective corridor.

A17-11 The commentator raises questions regarding whether the "buffer areas" that were part of previous draft documents for the wildlife corridor feature apply to the Relocated WLCF, and whether widths of the Relocated WLCF are sufficient. Based on the design of the Relocated WLCF, as described in more detail in the WLC Plan, the protection from adverse human related impacts and disturbance are now addressed by the WLC Plan, including its PDFs and other measures, rather than relying on activity zones to assure the biological integrity of the corridor. The Peer Reviewers concluded that the WLC Plan, including these PDFs and other measures, is sufficient to provide a biologically effective corridor and no additional buffer area is necessary.

A17-12 The commentator asserts that the DSSEIR is not consistent with mitigation measure BIO-3, specifically the statement that "The City shall implement the corridor consistent with the design criteria and viability analysis established in the OCGP FEIR." As described in the WLC Plan, the Relocated WLCF is substantially similar to the wildlife corridor feature analyzed in the 2011 Certified EIR, and as concluded by the Peer Reviewers, the WLC Plan provides a viable plan for a biologically effective corridor for the target species, which meet the goals of the City's General Plan. Mitigation Measure BIO-3 also required the City to continue to work with State and federal agencies toward implementation of the corridor, and to incorporate sight and sound barriers into the corridor design. The City has coordinated with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (collectively, the "Wildlife Agencies") regarding the Relocated WLCF, and those agencies have reviewed and provided comments and input with respect to the WLC Plan both in the form of comments on the DSSEIR, and in the form of comments and input necessary to develop the WLC Plan as set forth in Appendix C of this FSSEIR. Certain components of the WLC Plan, including PDFs to avoid and minimize adverse impacts of human related activities on the corridor, were developed, in part, to address the issues raised by the Wildlife Agencies. The WLC Plan recognizes the City's established process for review and approval of improvement plans for the Relocated WLCF prior to construction. The WLC Plan complies with Mitigation Measure BIO 3.

A17-13 The commentator states that the Relocated WLCF has implications under the Clean Water Act and asserts that the WLCF described in the 2011 Certified EIR was designed specifically to comply with such policies. The Special Area Management Plan establishes a watershed-specific permitting process under the Clean Water Act (Section 404 permit) and California Fish and Game Code (Section 1602 streambed alteration agreement) and prioritizes restoration opportunities within the watershed. The goal of the Special Area Management Plan is to comprehensively manage aquatic resources in the San Diego Creek watershed by guiding development away from higher value aquatic resources and directing mitigation efforts to restore lower value aquatic resources.

One of the objectives in the Special Area Management Plan is the connection between the NCCP/HCP Central and Coastal reserves. This objective in the Special Area Management Plan is described as a "City proposal" that would be "created along the eastern edge of the former MCAS El Toro and would involve recreating and daylighting drainages, planting native vegetation with a width of a minimum of 300 feet, increasing the size of culverts, and other wildlife undercrossings, and maintaining some redundancy with contiguous riparian corridors, which would offer secondary wildlife corridor values." The Special Area Management Plan also includes policies for supporting habitat linkages and aquatic habitat preservation/restoration areas within the El Toro Plan Area. The language in the Special Area Management Plan acknowledged and incorporated existing and ongoing planning efforts by the City and other stakeholders for the wildlife corridor rather than dictating a location or design for the corridor.

The Relocated WLCF is consistent with the Special Area Management Plan objectives. The Relocated WLCF provides for habitat linkages and aquatic habitat preservation/ restoration areas within the El Toro Plan Area. Segments 2 and 3 would be "created along the eastern edge of the former MCAS El Toro" and would involve creating drainage and planting of native riparian vegetation with a minimum width of approximately 485 feet. Culverts and undercrossings will be appropriately sized to facilitate movement of the target species. With respect to the redundant connections to contiguous riparian corridors, the commentator is referred to USFWS Response A12-4.

Construction of Segments 2 and 3 in the location proposed under either the WLCF analyzed in the 2011 Certified EIR or the Relocated WLCF would not impact riparian habitat. While the SAMP identified the construction of a wildlife corridor as an objective, agency authorization is not required for Segments 2 and 3. Additionally, impacts to aquatic resources from the 2012 Modified Project (or the 2011 Approved Project) are authorized under project-specific permits from the Corps of Engineers and California Department of Fish and Game, not under the streamlined permits issued for activities under the Special Area Management Plan. These permits were issued while the Special Area Management Plan was being prepared.

A17-14 To the extent that the comment is related to analysis of the functionality of the Relocated WLCF, the commentator had the opportunity to review and revise the WLC Plan and has concurred in the Peer Reviewers' conclusion that the Relocated WLCF is a biologically effective corridor. The Peer Reviewers' conclusion included consideration of potential effects to breeding, foraging, and sheltering because of incompatible land-use and maintenance requirements within the wildlife corridor and PDFs and other measures included in the WLC Plan to address the potential effects. Appendix D, WLC Plan. To the extent that commentator objects to the new location of the Relocated WLCF because it will "facilitate the development of up to 5,806 additional dwelling units in the Heritage Fields Project," the comment is general in nature and no response is necessary.

A17-15 The commentator raises issues related to the effectiveness of the Relocated WLCF. The commentator had the opportunity to review and revise the WLC Plan and has concurred in the Peer Reviewers' conclusion that the Relocated WLCF would be a biologically effective corridor.

A17-16 The commentator requests additional information regarding the width of the Relocated WLCF. Segments 2 and 3 will range in width from 485 feet to 1100 feet, with an average width of more than 600 feet. Segments 3 South and 4 will range in width from 440 feet to 790 feet with an average width of approximately 530 feet. The commentator is referred to the WLC Plan for more detail regarding variation in corridor width. As noted above, the commentator and the Peer Reviewers specifically considered the proposed width and configuration of the Relocated WLCF as specified in the WLC Plan in reaching the conclusion that the Relocated WLCF will be a biologically effective corridor. WLC Plan, Appendix D.

A17-17 The commentator requests additional information regarding road and trail crossing for the Relocated WLCF. As noted by the commentator, the WLCF analyzed in the 2011 Certified EIR anticipated two road crossings within Segments 2 and 3. Similarly, the Relocated WLCF proposes one road crossing (Astor) and one potential road/trail crossing in Segments 2 and 3. The WLC Plan also provides for one road and one potential pedestrian crossing within Segments 3 South and 4. The WLC Plan specifies minimum design criteria for those crossings to assure that the crossings are large enough and have an appropriate design to facilitate movement of the target species. Minimum design criteria for the potential future road/trail crossing in Segments 2 or 3 and the potential pedestrian trail crossing in Segment 4 are specified in the WLC Plan, and the specific design of the wildlife movement elements of the crossings (height to width ratio, substrate, and proximity to other crossings) will be reviewed by the City and the Peer Reviewers. The design criteria of the WLC Plan will ensure that any corridor crossing will be consistent with the objectives with respect to wildlife. The Peer Reviewers, including Drs. Lisa Lyren, Erin Boydston, and Paul Bier, and the commentator specifically considered all permitted corridor crossings in determining that the Relocated WLCF would be a biologically effective corridor. WLC Plan, Appendix D.

A17-18 The commentator requests additional information regarding hydrology design for, and potential impacts of, the Relocated WLCF. The potential impacts of the wildlife corridor feature analyzed in the 2011 Certified EIR were originally included in the Orange County Flood Control and City approved Master Plan of Drainage "Master Plan of Drainage." The Relocated WLCF is within the same watershed and in fact the same sub area as the WLCF analyzed in the 2011 Certified EIR. For the 2012 Modified Project, the Hydrology Study included analysis of the Relocated WLCF and concluded that no impacts would occur. The Master Plan of Drainage determined that the existing Borrego Channel, adjacent to Segment 2 of the Relocated WLCF, provides adequate flood control capacity, and the drainage within Borrego Channel will be diverted into the Relocated WLCF in accordance with the County of Orange Alton Extension HMMP. The operation of the splitter for Segment 1 (north of Irvine Boulevard), which is subject to the design and operating criteria of the County of Orange Alton Extension HMMP, will be designed to convey

approximately 53 to 96 cfs in 10-year storm events and up to 112 cfs during a 100-year storm event, and drainage design will be reviewed by the City prior to construction to assure consistency with the Master Plan of Drainage. While drainage design for Segments 3 South and 4 have not changed as a part of the Relocated WLCF, construction of those segments of the corridor, including all drainage improvements will similarly be subject to City review to assure consistency with the Master Plan of Drainage. As a result, no significant adverse hydrology impacts associated with the construction of the Relocated WLCF are anticipated.

A17-19 The commentator asks for additional information regarding vegetation types in order to analyze the potential for biodiversity. The WLC Plan specifies a vegetation plan for each segment of the Relocated WLCF, as well as plant palettes for all areas within the corridor. The commentator provided input on vegetation types in the development of the WLC Plan, which states that the Relocated WLCF will be planted with a mosaic of native species and will include mulefat scrub, Southern willow scrub, Coastal Sage Scrub, Southern Cactus Scrub, and native screening planting as described more completely in the WLC Plan. As set forth in the WLC Plan, this combination of diverse habitats is expected to attract a diversity of native avifauna and over time, will be colonized by native reptiles, small mammals, and amphibians, migrating from north to south and would exhibit the same habitat functions as the Approved Wildlife Corridor location. The addition of areas of Southern Cactus Scrub, will also provide potential live-in habitat for the cactus wren, providing potential movement opportunities between Central and Coastal Areas of the NCCP/HCP for this species, as well. The Peer Reviewers and the commentator specifically considered vegetation and habitat types to be created pursuant to the WLC Plan and concluded that the Relocated WLCF would provide sufficient native habitats both to encourage and to facilitate movement of the target species, and to provide shelter, foraging and nesting habitat for the California gnatcatcher and the least Bell's vireo, as well as for the coastal cactus wren (although the cactus wren is not a target species identified by prior wildlife corridor plans). WLC Plan, Appendix D.

A17-20 The commentator raises concerns regarding the potential for visibility of high-density development from locations within the corridor, and for light and noise intrusion resulting from development adjacent to the Relocated WLCF. Like the 2011 Approved Project, the 2012 Modified Project anticipates that some development will occur near the WLCF of variable types and densities. The DSSEIR acknowledged the potential for adjacent development to result in visual intrusion of urban improvements, as well as light and noise intrusion. The WLC Plan incorporates berms, vertical offsets, and screening planting to minimize visual disturbances from urban improvements, and light and noise intrusion, together with performance standards for measuring and assuring minimization of the impacts as specified in the WLC Plan. The Peer Reviewers and the commentator specifically considered edge effects, including visual, light and noise intrusion, and the WLC Plan's PDFs to avoid and minimize those edge effects, and concluded that the Relocated WLCF provides a biologically effective corridor and sufficient habitat quality to foster movement, foraging, sheltering and nesting of the target species, as well as the coastal cactus wren. WLC Plan, Appendix D.

The commentator also raises specific concerns regarding the potential for light and noise intrusion around the Marine Way/SCRRA rail line crossing due to elevation of that crossing. Both the WLCF analyzed in the 2011 Certified EIR and the Relocated WLCF included a Marine Way crossing of the SCRRA train tracks. The 2012 Modified Project further reduces light and noise intrusion from the Marine Way crossing of the SCRRA tracks by shifting the location of the corridor further away from Marine Way.

A17-21 The commentator refers to comments submitted by the U.S. Fish and Wildlife Service. The commentator is referred to USFWS 1, USFWS 2, and USFWS 3.

A17-22 The commentator repeats its concerns regarding functionality of the Relocated Wildlife Corridor feature and buffer areas. The commentator is referred to LGB 7, 10, 13 and 15-19 above.

A17-23 The commentator is referred to LGB 10, 13, and 19 for a discussion of the manner in which the WLC Plan avoids and minimizes edge effects for the Relocated WLCF, including edge effects minimized by buffers pursuant to prior wildlife corridor plans.

A17-24 The WLC Plan includes discussion of vegetation management practices that are permitted for fire control purposes and specifies project design features to minimize effects of required vegetation maintenance, including the specification of Special Maintenance Areas 1 and 2, limited to 30 feet in width, for regular Vegetation Management activities, and native vegetation cover specifications to assure establishment of habitat conducive to nesting and breeding of gnatcatchers, least Bell's vireo and cactus wren. The Peer Reviewers and the commentator considered Vegetation Management for fire control and other limited purposes in determining that the Relocated WLCF would provide a biologically effective corridor and habitats sufficient to provide target species with shelter, foraging, nesting opportunities and cover. Appendix D, WLC Plan. The commentator is also referred to CDFG Response A13-4.

A17-25 Please refer to Response A17-24, above.

A17-26 The commentator states that the location of the WLCF analyzed in the 2011 Certified EIR has "undisclosed and unanalyzed proximity advantages over the Relocated WLCF" due to the potential, if not functional, connect to the southern portion of the Agua Chinon restoration area. The commentator is referred to USFWS Response A12-4.

A17-27 The commentator raises concerns regarding the potential contamination of the Relocated WLCF. As was the case with the WLCF analyzed in the 2011 Certified EIR, the Relocated WLCF would only potentially be impacted by one former landfill: IRP Site 5. As discussed in Section 5.5, Hazards and Hazardous Materials of the DSSEIR (pp. 5.5-9 to 5.5-10 and 5.5-19 to 5.5-20), the applicant has already addressed potential contamination; the cap for the Landfill (IRP-5) was completed in 2011. The implementation of the following institutional controls will reduce any potential exposure to hazards to human health or the environment:

- Construction of facilities, structures, or appurtenances; excavation; or any other land-disturbing activity into or on the surface of the landfills that may involve adverse impacts upon the performance of the cap or affect the drainage and erosion controls developed for the cap without the prior review and written approval of the Federal Facilities Agreement ("FFA") signatories.

- Planting deep-rooted plants that have the potential to interfere with the performance of the cap in preventing infiltration (surface irrigation is not prohibited) without the prior review and written approval of the FFA signatories.

- Removal of or damage to security features (such as locks on monitoring wells, site fencing, and signs) or to survey monuments, monitoring equipment, piping, or other appurtenances without the prior review and written approval of the FFA signatories.

The proposed WLC Plan specifies use of only shallow-rooted plants in the vicinity of the landfill cap. The WLC will not disturb (excavate into) the cap, as this portion will remain at the existing grade. Per the Navy, open space and the proposed Relocated WLCF are not only an acceptable use for the capped landfill, but an optimal use as access from the public is controlled. The Navy will be provided access as they will be inspecting the integrity of the cap on a regular (no more than quarterly) basis.

A17-28 The comments regarding the El Toro Habitat Reserve parcel and text in the DSSEIR are general in nature and do not require a response. The connection to the Relocated WLCF, Segment 1, is required to be protected by a Conservation Easement dedicated by the County of Orange pursuant to the Alton HMMP and the Section 404 Permit and Section 1602 Agreement for which the HMMP was adopted and approved.

A17-29 The comments regarding the ownership of the FBI parcel do not require a response. The description of the status of the El Toro Habitat Reserve Parcel has been revised in the Final SSEIR to reflect that the property has been transferred to the FBI and that the City is negotiating directly with the FBI on suitable use and management measures to facilitate wildlife movement throughout the area.

Per the commentator's request, Page 7-12 of the DSSEIR has been revised as follows:

No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR. Approximately 974 acres offsite, in Planning Area Zone 3 of Existing PA 51, have been designated habitat preserve in accordance with the Orange County Central-Coastal NCCP. The Federal Aviation Administration transferred management of the property to the Federal Bureau of Investigation ("FBI") and the FBI has indicated that it does not intend to develop any additional facilities on the federal property for the foreseeable future. ~~Federal Aviation Administration ("FAA"), and it is expected that it will be managed in the future by the US Fish and Wildlife Service.~~ The 2012 Modified Project would not develop any areas designated as habitat preserve in the

2011 Approved Project, or on the Proposed Project Site. Therefore, neither this alternative nor the 2012 Modified Project would conflict with an NCCP or Habitat Conservation Plan and both would result in a less than significant impact.

Per the commentator's request, Page 8-5 of the DSSEIR has been revised as follows:

F)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR. Approximately 974 acres offsite, in Planning Area Zone 3 of Existing PA 51, have been designated as a habitat preserve in accordance with the Orange County Central-Coastal NCCP. The Federal Aviation Administration transferred management of the federal property to the **Federal Bureau of Investigation ("FBI").** ~~Federal Aviation Administration ("FAA"), and it is expected that it will be managed in the future by the US Fish and Wildlife Service.~~ None of the areas to be developed under the 2011 Approved Project or the 2012 Proposed Project is designated as habitat preserve. Therefore, development of the 2012 Modified Project would not conflict with an NCCP or Habitat Conservation Plan and no impacts would occur with the 2012 Modified Project as compared to the 2011 Approved Project.

A17-30 The commentator states that the DSSEIR must address the "uncertain long-term ownership, availability for inclusion in the corridor, and ongoing habitat value." The change in federal agency custodianship of the El Toro Habitat Reserve Parcel does not constitute changed circumstance. The FBI has used the site since 2001, and in the NEPA document approved by the FBI prior to the transfer of control from the FAA, the FBI stated that it did not intend to expand the existing facilities on the Reserve Parcel in the foreseeable future. Given that existing uses are expected to continue, any such analysis of potential effects would be speculative.

A17-31 The commentator states that the SSEIR must analyze the cumulative impacts developing the 132 acres designated as the WLCF in the 2011 Certified EIR. The SSEIR contains an extensive analysis of cumulative impacts for the 2012 Modified Project in each impact area in Chapter 5. The comment is unclear as to how this analysis is unsatisfactory. Moreover, the relocation of Segments 2 and 3 of the WLCF does not result in any change to cumulative impacts of the 2011 Approved Project as a result of its relocation. As noted by commentator, the 2011 Certified EIR stated that 132 acres would remain largely undeveloped for future designation as wildlife corridor. The 2012 Modified Project still includes 132 acres that will remain largely undeveloped for future designation as a wildlife corridor because the WLCF is being relocated, but retained as a feature of the Orange County Great Park.

A17-32 The commentator claims that ownership issues should be discussed in the SSEIR and that the "DSSEIR should be revised to include an alternative alignment of the wildlife corridor that preserves functionality in the event the El Toro parcel cannot be

permanently designated as a habitat preserve." The FBI has stated in NEPA documentation that it did not intend to expand its facilities within the area for the foreseeble future, there is no information regarding another corridor alternative that might be acceptable to owners of the land to the north of the corridor is available. Therefore, any such analysis would be speculative.

A17-33 The commentator raises issues related to consistency with the Orange County Sustainable Communities Strategy H ("SCS") based on the fact that the 974-acre NCCP Habitat Preserve is being transferred to the FBI. As noted above, the FBI has stated in NEPA documentation that it did not intend to expand its facilities within the area for the foreseeable future, so no analysis of inconsistency with the SCS is warranted, and any assumptions regarding the manner in which the open space uses within the 974-acre area might change to become inconsistent with the SCS would be speculative.

A17-34 The commentator raises issues related to consistency with Orange County Central NCCP. The commentator is referred to Responses A17-6, A17-13 and A17-19, above for a discussion of consistency of the WLC Plan and the Relocated WLCF with the NCCP/HCP. The FBI has stated in NEPA documentation that it did not intend to expand its facilities within the area in the foreseeable future, any analysis of biological impacts that might be associated with a failure to protect the 974-acre area, or a portion of it, currently designated for conservation by the NCCP/HCP would be speculative.

A17-35 To the extent that the commentator raises issues regarding the project description, the commentator is referred to Topical Response 1, Project Description. To the extent that the commentator raises issues related to segmentation, the commentator is referred to Topical Response 2, Baseline.

A17-36 The commentator asserts that the SSEIR fails to analyze impacts to open space that result from additional residents. The commenter asserts that the City has failed to analyze impacts to the Laguna Coast Wilderness Park and Aliso and Wood Canyon Wilderness Park. The commenter also asserts that the Irvine Wilderness Parks have significantly limited access, which consequently pushes recreational users to the Laguna Greenbelt.

The closest access to the Laguna Coast Wilderness Park from the Proposed Project Site is Nix Nature Center located approximately 6 to 9 miles south of the Proposed Project Site. The Aliso and Wood Canyon Wilderness Park is located approximately 11 to 14 miles southeast of the Proposed Project Site.

While it is likely that some of the future residents within the 2012 Modified Project may occasionally use Laguna Coast Wilderness Park and Aliso and Wood Canyon Wilderness Park, it is unlikely that the additional use would be significant. In the Hayward case cited in the comment, the parks in question were directly adjacent to the project, and no additional park space was being provided as part of the project. In contrast, in addition to the minimum 32.8 additional acres of new parks (above what was approved in the 2011 Approved Project) being provided by the project, and the

Great Park itself, the City of Irvine provides a substantial amount of hiking and biking trails in close proximity to the Proposed Project Site. The Irvine Open Space Preserve comprises a significant portion of the City's protected natural landscape, which includes parks, greenbelts, trails and wildlands. The Preserve was first established in 1988 when Irvine voters approved the Irvine Open Space Initiative, which provided for the permanent protection of a contiguous network of conservation and open space lands. Currently more than 5,200 acres, the Preserve is a mosaic of some of the most rare and biologically diverse ecosystems in the world, including wetlands, oak woodlands, grasslands and coastal sage scrub.

Several trailheads are located within close proximity to the Proposed Project Site. Both the Bommer Canyon and Quail Hill Trailheads are located approximately 7 to 10 miles southwest of the Proposed Project Site. The City of Irvine has a variety of wildland open spaces. Some like Quail Hill, are open dawn to dusk for public access as long as people stay on marked trails. Others, like Shady Canyon, contain highly sensitive natural resources and require that public access be more carefully managed. Quail Hill now offers an exclusive, self-guided audio tour and all you need is your cell phone. The City is actively working to expand opportunities to visit these places over time as planned trails and facilities are completed. These include opportunities for self-guided access and open-to-public programs. In addition, guided tours are provided through the Irvine Ranch Conservancy at Hicks Canyon, Orchard Hills Loop, and Portola Staging Area. The Portola Staging Area is located just north of the Proposed Project Site and is planned to eventually extend to the project boundary. It should also be noted that this project facilitates the creation of the 1,300-acre Orange County Great Park which will provide substantial and varied recreational amenities to Irvine residents and the region, as a whole. The 2012 Modified Project includes implementation of recreational facilities in the previously approved Sports Park District of the Orange County Great Park. As indicated in Section 5.11.2 of the DSSEIR, the threshold of significance is whether the project: "Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated." The comment does not indicate how the potential for additional patronage would cause a physical deterioration of the trails in Laguna Coast Wilderness Park and Aliso and Wood Canyon Wilderness Park. Considering the availability of hiking and biking trails within the Irvine Open Space Preserve and the recreational facilities to be provided within the Orange County Great Park and throughout the City of Irvine, it is unlikely that future residents within the 2012 Modified Project will significantly impact Laguna Coast Wilderness Park or Aliso and Wood Canyon Wilderness Park.

A17-37 The commentator asserts that the City is required to prepare a subsequent EIR rather than a Supplemental EIR, citing CEQA Guidelines Section 151653(a)(2). The commentator is referred to Topical Response 1, Project Description.

A17-38 The commentator claims that the SSEIR should be recirculated. The commentator is referred to CDFG Response A13-7.

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LETTER A18 – Orange County Public Works (OCPW) (2 pages)

ORANGE COUNTY
OC PublicWorks
Our Community. Our Commitment.

Ignacio G. Ochoa, P.E.
Interim Director
300 N. Flower Street
Santa Ana, CA

P.O. Box 4048
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Telephone: (714) 834-2300
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NCL 12-011

September 7, 2012

Mr. Barry Curtis, Manager, Planning and Development Services
City of Irvine, Community Development Department
P.O. Box 19575
Irvine, California 92623-0575

SUBJECT: Notice of Completion and Availability of a Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project 2012 General Plan Amendment and Zone Change located in the City of Irvine

Dear Mr. Curtis:

The County of Orange ("County") has reviewed Notice of Completion and Availability of a Draft Second Supplemental Environmental Impact Report for the Heritage Fields Project 2012 General Plan Amendment and Zone Change. Thank you for the opportunity to comment.

As you may be aware, the County is in the process of master planning for its landholdings at the former USMCAS El Toro property. These properties are commonly referred to as the 100 acre property on the southern edge and the Alton parcels on the northerly side of Irvine Boulevard. The County Board of Supervisors recently took action to enter into a 25 year lease with Wild Rivers for the development and operation of a new water park on approximately 17 acres of the 100 acre property. The remaining undeveloped portions of the property are also under County review for future development considerations. The County has recently selected a development partner, Lowe Enterprises, for the long-term planning and development of the remainder of the 100 acre parcel. Future development on the County property at the former USMCAS El Toro is subject to the provisions of the Pre-Annexation Agreement between the County and the City, dated March 4, 2003, and will not be limited by any capacity projections in the Supplemental EIR for Heritage Fields.

A18-1

We also offer the following topical comments:

Mr. Barry Curtis
City of Irvine
September 7, 2012

Flood Control/Trails

OC Public Works reviewed the subject Supplemental EIR and offers the following:

1. Figure 5.12-32
   This figure does not include the Borrego Wash Class I (paved, off-road) Bikeway. Please add the Borrego Class I Regional Bikeway.

   This master-planned bikeway is shown on OCTA's Commuter Bikeways Strategic Plan as beginning near Limestone-Whiting Ranch Wilderness Park then extending south to connect with a future Class I Bikeway along the north side of the OCTA rail line. The Borrego Wash Bikeway is proposed to parallel, or be aligned, within Borrego Wash Channel right-of-way. **A18-2**

   If the Borrego Wash Bikeway is not on the City's Master Plan of Bikeways, consider showing the bikeway alignment on the figure with a note stating that the route is on OCTA's Commuter Bikeways Strategic Plan.

2. Ensure that the relocated wildlife corridor does not preclude connecting the Borrego Wash Class I Bikeway to another planned Class I Bikeway, the OCTA Class I Bikeway, which is planned to parallel the OCTA rail line. Please add the OCTA Class I Bikeway. **A18-3**

   If the OCTA Class I Bikeway is not on the City's Master Plan of Bikeways, consider showing the bikeway alignment on the figure with a note stating that the route is on OCTA's Commuter Bikeways Strategic Plan. **A18-4**

3. Figure 3-5, Proposed Wildlife Corridor Relocation
   This figure shows the proposed relocated 2011 wildlife movement corridor east toward OCFCD's Borrego Channel right-of-way. The relocation of the wildlife movement corridor should not preclude the construction and operation of the future Borrego Wash Bikeway within channel right-of-way. **A18-5**

Please contact Jeff Dickman at (714) 647-3937 with questions or concerns.

Sincerely,

Michael Balsamo
Manager, OC Community Development
OC Public Works/OC Planning
300 North Flower Street
Santa Ana, California 92702-4048
Michael.Balsamo@ocpw.ocgov.com

cc: Ignacio G. Ochoa, P.E. Interim Director, OC Public Works
James Campbell, OC Public Works
Jeff Dickman, OC Public Works

A18. Response to Comments from Michael Balsamo, Manager, OC Community Development, OCPW, dated September 7, 2012.

A18-1 Comment noted. No response required.

A18-2 The commentator has requested that Figure 5.12-32 show the Borrego Wash Class I Bikeway. As shown on the following page, Figure 5.12-32 has been updated to show a Class I trail along "B" Street, consistent with the Approved Master Landscape and Trails Plan. This trail provides connectivity between Irvine Boulevard and the Metrolink rail similar to the link described in the comment. A Wildlife Corridor Plan has been prepared which includes measures to minimize effects to wildlife from human intrusion and reduce conflicts between wildlife and development. The location of a Class I Bikeway along Borrego Wash would conflict with the Wildlife Corridor Plan. Therefore, the City does not support a trail along Borrego Wash as it would be redundant to the trail along "B" street and considered incompatible with the Relocated Wildlife Corridor given its close proximity.

A18-3 The commentator requests assurance that the relocated wildlife corridor does not impact connection of the Borrego Wash Class 1 Bikeway to another planned bikeway along the OCTA rail line. As stated in Response A18-2 the connectivity between Irvine Boulevard and the Metrolink rail line similar to what the Commentator is describing is provided along "B" Street.

A18-4 The commentator asks that the lead agency consider showing an OCTA Class 1 Bikeway along the OCTA rail line on the City's Master Plan of Bikeways. Figure 5.12-32 includes a Class I trail along Marine Way as well as a trail aligned with the OCTA rail line from Marine Way east to the property boundary similar to the trail described in the comment.

A18-5 See Response A18-2, above.

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LETTER A19 – Saddleback Unified School District (SVUSD) (5 pages)

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

E-Mailed: September 7, 2012
bcurtis@ci.ivine.ca.us

September 7, 2012

Mr. Barry Curtis
Manager of Planning and Development Services
Community Development Department
PO Box 19575
Irvine, CA 92623-0575

Review of the Draft Second Supplemental Environmental Impact Report (Draft SSEIR) for the Heritage Fields Project

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The following comment is intended to provide guidance to the lead agency and should be incorporated into the Final Environmental Impact Report (Final EIR) as appropriate.

The AQMD staff recognizes the potential long term regional air quality benefits from the proposed transit oriented development portion of the project that may reduce vehicle miles traveled (VMT) in the region. However, the AQMD staff is concerned that the project places new sensitive land uses[1] and intensifies existing sensitive land uses within 500 feet of the Interstate 5 Freeway (I-5 Freeway). The I-5 Freeway is a potentially significant source of toxic air pollutants given that up to 278,000 vehicles per day travel along this section. Therefore, absent substantial evidence demonstrating that public health impacts due to freeway proximity are insignificant the lead agency should include mitigation in the Final EIR that is consistent with the CARB Land Use Handbook[2]. Specifically, the lead agency should preclude the placement of new sensitive land uses or the intensification of existing sensitive land uses within 500 feet of the I-5 Freeway. If the lead agency determines that a mitigation measure requiring a 500 foot buffer between the I-5 Freeway and sensitive land uses is infeasible then the potential health risk impacts to these receptors should be quantified. In the event that the final EIR demonstrates significant adverse air quality impacts the lead agency should require mitigation pursuant

A19-1

[1] Sensitive land uses are land uses where sensitive individuals are most likely to spend time, including schools, schoolyards, parks, playgrounds, day care centers, nursing homes, hospitals, and residential communities.
[2] California Air Resources Board. April 2005. "Air Quality and Land Use Handbook: A Community Health Perspective." Accessed at: http://www.arb.ca.gov/ch/landuse.htm

to Section 15092 of the California Environmental Quality Act (CEQA) Guidelines. Further, AQMD staff recommends that pursuant to Section 15126.4 of the CEQA Guidelines additional mitigation measures are considered to minimize the project's significant construction and operational air quality impacts. Details regarding these comments are attached to this letter. A19-1 cont'd.

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. Further, staff is available to work with the lead agency to address these issues and any other questions that may arise. Please contact Dan Garcia, Air Quality Specialist CEQA Section, at (909) 396-3304, if you have any questions regarding the enclosed comments.

Sincerely,

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

Attachment

IM:DG

ORC120710-01
Control Number

Potential Health Risk Impacts to Sensitive Land Uses

1. Based on the lead agency's project description in Chapter 3 of the Draft SSEIR (see Figure 3-2) the proposed project includes the addition and intensification of sensitive land uses within 500 feet of the I-5 Freeway. Specifically, the project will add up to 5,806 residential units and 3,364,000 square feet of medical and science uses to the plan area. As a result, the AQMD staff is concerned about potentially significant health risk impacts from toxic air pollutants emitted by the high volume of traffic that would travel in close proximity to the proposed uses. Recent research has revealed that pollutants found in close proximity to freeways are associated with a variety of adverse health effects, independent of regional air quality impacts[3]. These can include reduced lung capacity and growth[4]; cardiopulmonary disease[5]; increased incidence of low birth weight, premature birth, and birth defects[6]; and exacerbation of asthma[7]. Without quantifying the potential air quality impacts from the I-5 Freeway segments that are adjacent to the proposed project and without effective mitigation measures, the lead agency has not demonstrated that public health would not be impacted by this project. Therefore, AQMD staff recommends that the lead agency maintain the 500-foot buffer specified in the CARB Land Use Handbook for any new sensitive land use built close to a freeway. A19-2

Operational Emissions Mitigation

2. Given that the lead agency determined that the proposed project will exceed the CEQA regional operational significance thresholds for NOx, VOC, PM2.5 and CO the AQMD staff recommends that the lead agency provide the following additional mitigation measures pursuant to CEQA Guidelines Section 15126.4.

Transportation

- Require electric car charging stations for non-residential land uses. Also, provide designated areas for parking of zero emission vehicles (ZEVs) for car-sharing programs. A19-3
- Provide electric car charging infrastructure for commercial and residential land uses. A19-4
- Provide incentives to encourage public transportation and carpooling, such as park and ride lots, or dedicated shuttle service from the development to nearby transit for commuters. A19-5
- Provide incentives for employees and the public to use public transportation such as discounted transit passes, reduced ticket prices, and/or other incentives. A19-6

[3] "Special Report 17. Traffic-related air pollution: A critical review of the literature on emissions, exposure, and health effects". Health Effects Institute, May 2009; 394 p.
[4] "Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study". Gauderman WJ et al., Lancet, February 2007; 369 (9561): 571-7.
[5] "Exposure to traffic and the onset of myocardial infarction". Peters A et al., The New England Journal of Medicine, 351(17):1721-1730
[6] Ritz B, et al. 2002 Ambient air pollution and risk of birth defects in Southern California. Am J Epidemiology, 155:17-25
[7] McConnell R, et al. 2006. Traffic, susceptibility, and childhood asthma. Environ Health Perspectives 114(5):766-72

- Implement a rideshare program for employees. A19-7
- Require the use of 2010 diesel trucks, or alternatively fueled, delivery trucks (e.g., food, retail and vendor supply delivery trucks) upon project build-out. A19-8
- Provide an alternative fueling station for delivery trucks (e.g., natural gas or electric) and passenger cars. A19-9
- Create local "light vehicle" networks, such as neighborhood electric vehicle (NEV) systems. A19-10
- Require the use of electric or alternative fueled maintenance vehicles at commercial and residential sites. A19-11

Other

- Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs and/or on the Project site to generate solar energy for the facility. A19-12
- Provide outlets for electric and propane barbecues in residential and park areas. A19-13
- Require use of electric lawn mowers and leaf blowers. A19-14
- Require use of electric or alternatively fueled sweepers with HEPA filters at commercial sites. A19-15
- Require use of water-based or low VOC cleaning products at commercial facilities. A19-16

Construction Equipment Mitigation Measures

3. The lead agency determined that the proposed project will exceed the CEQA regional construction significance thresholds for NOx, VOC, CO, PM10, and PM2.5; therefore, AQMD staff recommends that the lead agency provide the following additional mitigation measures pursuant to CEQA Guidelines Section 15126.4.

   - Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx emissions requirements,

   - Consistent with measures that other lead agencies in the region (including Port of Los Angeles, Port of Long Beach, Metro and City of Los Angeles) have enacted, require all on-site construction equipment to meet EPA Tier 3 or higher emissions standards according to the following: A19-17

     ✓ Project start, to December 31, 2014: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 3 offroad emissions standards. 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.

     ✓ Post-January 1, 2015: All offroad diesel-powered construction equipment greater than 50 hp 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 documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

- ✓ Encourage construction contractors to apply for AQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for AQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm

A19-17 cont'd.

For additional measures to reduce off-road construction equipment, refer to the mitigation measure tables located at the following website: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html

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A19. Response to Comments from Ian MacMillan, Program Supervisor, CEQA Inter-Governmental Review Planning, Rule Development and Area Sources, South Coast Air Quality Management District, dated September 7, 2012.

A19-1 The commentator states it "recognizes the potential long term regional air quality benefits from the proposed transit oriented development portion of the project that may reduce vehicle miles traveled" but that it is concerned about the potential for placement of sensitive uses near I-5. Specifically, comment 1 raises the issue of placing new sensitive land uses and intensifying existing sensitive land uses within 500 feet of the Interstate 5 Freeway (I-5 Freeway) pursuant to recommendations in the CARB Air Quality and Land Use Handbook (CARB Handbook).

The City notes that the CARB Handbook is an advisory document and is not binding on any lead agency, as noted on page 4, where it states that its "recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues."

The DSSEIR only includes one area, District 2, that is within 500 feet of the I-5 Freeway (see DSSEIR Chapter 3, Figure 3-2). The exact development in the 500 foot area adjacent to the I-5 Freeway within District 2 is unknown. It is possible that development in District 2 may be designed such that some or even all the areas within 500 feet of I-5 will not include sensitive uses (Sensitive land uses are land uses where sensitive individuals are most likely to spend time, including schools, schoolyards, parks, playgrounds, day care centers, nursing homes, hospitals, and residential units). The precise configuration of uses will not be determined until the tract map level stage. If sensitive uses are excluded from the 500 foot buffer, no mitigation for this impact would be necessary.

To the extent sensitive uses may be located within the 500 foot buffer, there are mitigation measures which could reduce any possible adverse impact to a level of insignificance. The CARB Handbook cites a study that showed concentrations of traffic-related particulate matter decline by 70 percent at a distance of 500 feet from the freeway (ref: CARB Handbook, p. 6). Based on this, the CARB Handbook recommends avoiding siting residential receptors within 500 feet of a freeway. By suggesting residential uses are appropriate 500 feet beyond a freeway, CARB has implicitly indicated that a reduction of 70 percent in particulate emissions would be sufficient to avoid additional significant impacts from freeway emissions. An approach consistent with the CARB Handbook would be to mitigate the potential emissions to sensitive receptors within the 500-foot area near I-5 by 70 percent through other mitigation factors, , which is functionally equivalent to excluding the development of sensitive receptors within 500 feet of the freeway.

The SSEIR has been revised to include requirements for a combination of distance, a vegetative barrier, health risk assessments and air filtration systems to reduce the impact of potential emissions from the freeway by 70 percent of their peak on sensitive receptors within the 500 foot area adjacent to the I-5 Freeway. The Sacramento Metropolitan Air Quality Management District has recognized that

vegetative screening can substantially mitigate particulate concentrations in the air from freeway emissions.[1] Studies have shown that vegetative landscaping can reduce particulate concentrations in the air by up to 65-85 percent, with greater removal rates expected for ultra-fine particles < 0.1 μm in diameter.[2] A University of California, Davis study determined that conifer or redwood tree screening can remove more than 80 percent of ultrafine particulates, including 99 percent of particulates with a diameter of 0.015 or less.[3] An air filtration system can also reduce freeway particulate matter emissions by 80percent. Health risk assessments may be used to ensure that air emissions for sensitive receptors for particular buildings are below 70 percent due to other constraints such as building design, terrain variations, or persistent wind patterns. Thus, the inclusion of distance, a vegetative barrier and/or an air filtration system would be consistent with the CARB Handbook recommendations for development within the 500 foot area adjacent to the I-5 Freeway.

The SSEIR will include the following additional mitigation measure with respect to sensitive receptors which may be developed within this 500-foot area adjacent to the I-5 Freeway to address potential impacts, consistent with the CARB Land Use Handbook and result in freeway particulate matter at least 70 percent lower than at emission sources:

AQ-6:

a. Install tiered vegetative landscaping, where feasible, between I-5 Freeway and any sensitive land use located within 500 feet of I-5 Freeway.

b. Prepare a health risk assessment when sensitive land use buildings are located within 500 feet of I-5 Freeway to ensure particulate matter at 70 percent lower than estimated at emission sources.

c. Install an air filtration system on the Heating, Ventilation and Air Conditioning system within a sensitive land use building located within 500 feet of I-5 Freeway.

The City has determined in light of all these factors that these mitigation measures are an appropriate response to the comments by SCAQMD.

A19-2 The commentator raises concerns regarding potential health risks resulting from residential development in proximity to traffic and recommends a new buffer in accordance with the CARB Handbook. See Response A19-1.

[1] Sacramento Metropolitan Air Quality Management District, Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, January 2009, pp. 21-22.
[2] Fujii, Erin et al., Removal Rates of Particulate Matter onto Vegetation as a Function of Particle Size, Final Report to Breathe California of Sacramento-Emigrant Trails Health Effects Task Force (HETF) and Sacramento Metropolitan AQMD, April 30, 2008, available at http://www.sacbreathe.org/Local%20Studies/Vegetation%20Study.pdf.
[3] Fuller, Micah, et al., University of California, Davis, Practical Mitigation Measures For Diesel Particulate Matter: Near-Road Vegetative Barriers, July 14, 2009, pp. 7-8.

A19-3 The commentator recommends new mitigation measures related to charging stations for non-residential land uses and designated parking for zero emissions vehicles. The 2012 Modified Project will include a new mitigation measure that states:

AQ-7: The 2012 Modified Project shall include: 1) electric car charging stations for non-residential land uses (excluding houses of worship) with 75 or more parking spaces and shall provide designated areas for parking of zero emission vehicles (ZEVs) for car-sharing programs at a rate of at least 1 per 100 parking spaces for non-residential uses.

A19-4 The commentator recommends new mitigation measures related to infrastructure for electric cars. See Response A19-3 above regarding non-residential land uses. With regards to residential land uses, the 2012 Modified Project will include a new mitigation measure that states:

AQ-8: The residential neighborhoods within the 2012 Modified Project shall be designed for electric loads that can accommodate vehicle charging.

A19-5 The commentator recommends new mitigation measures related to incentives to encourage public transportation and carpooling. This proposed mitigation measure is already incorporated into mitigation measure TRAN-1, which requires development and implementation of a Transportation Management Plan. TRAN-1 states in relevant part:

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services ((i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

A19-6 The commentator recommends new mitigation measures to encourage use of public transportation such as transit passes. This proposed mitigation measure is already incorporated into mitigation measure TRAN-1, which requires development and implementation of a Transportation Management Plan. See Response A19-5.

A19-7 The commentator recommends new mitigation measures related to a rideshare program. This proposed mitigation measure is already incorporated into mitigation measure TRAN-1, which requires development and implementation of a Transportation Management Plan. See Response to comment A19-5.

A19-8 The commentator recommends new mitigation measures related to use of diesel trucks or alternatively fueled delivery and service vehicles. Neither the City nor the applicant has jurisdiction over vehicular emissions, including emissions from trucks that may come or go from the proposed project, and CEQA does not expand the City's express or implied powers (CEQA section 21004; CEQA Guidelines section 15040). Nor would it be appropriate for the City to set such standards unless CARB has determined that they should be adopted for regional levels. CARB, which does have that jurisdiction, has already acted to reduce emissions from on-road diesel trucks (see http://www.arb.cagov/msprog/ondiesel/onrdiesel.htm).

Nonetheless, the SSEIR will include the following mitigation measure to encourage the use of alternatively fueled vehicles:

AQ-9:

a. To the extent fueling stations are constructed within the Project, potential fuel service providers will be encouraged to provide alternative fuel (i.e. electric and natural gas).

b. Preferential parking for low-emission and fuel-efficient vehicles will be provided in accordance with CalGreen Section 5.106.5.2

A19-9 The commentator recommends new mitigation measures related to alternative fueling stations. See Response A19-3, A19-4, and A19-8, and Mitigation Measures AQ 7, AQ 8, and AQ 9 above. Also, alternative fueling stations are a permitted use under the proposed zoning.

A19-10 The commentator recommends new mitigation measures related to the creation of a light vehicle network. The residential streets within the 2012 Modified Project are designed for lower speeds which would allow neighborhood electric vehicles (NEVs) to use those streets.

A19-11 The commentator recommends new mitigation measures related to use of electric or alternative fueled maintenance vehicles at commercial and residential sites. Neither the City nor the applicant has jurisdiction over vehicular emissions, including emissions from maintenance vehicles, and CEQA does not expand the City's express or implied powers (CEQA section 21004; CEQA Guidelines section 15040). Nor would it be appropriate for the City to set such standards unless CARB has determined that they should be adopted for regional levels. CARB does have that jurisdiction, and is the appropriate body to enact such restrictions. From a practical point of view, the applicant will no longer have control over commercial and residential sites once the 2012 Modified Project is built out, and the City cannot control the maintenance vehicles that enter its jurisdiction to serve those sites. Finally, the City does not believe it is appropriate to impose restrictions on one development or area that are not applied uniformly throughout its jurisdiction. See Response A19-8 and Mitigation Measure AQ 9.

A19-12 The commentator recommends new mitigation measures related to solar energy. For residential land uses, the 2012 Modified Project will include a new mitigation measure that states:

AQ-10 The applicant and its successors in interest will offer solar facilities as an option on all residential structures, or consistent with the current building code at the time of building permit.

However, it must be noted that the greenhouse gas emissions analysis showed that the 2012 Modified Project's greenhouse gas emissions would have a less than significant impact. Therefore, no mitigation measures to reduce the 2012 Modified Project's greenhouse gas emissions, including, without limitation, from electricity consumption, are required.

A19-13 The commentator recommends new mitigation measures related to outlets for electric and propane barbecues in residential and park areas. Residential units within the 2012 Modified Project will be provided with both electrical and natural gas utilities. However, use of propane tanks in park areas would be impracticable due to high maintenance and a safety hazard, particularly for users unfamiliar with procedures for proper operation of tanks.

The SSEIR will include the following mitigation measure regarding providing information to future homeowners about measures which can improve air quality:

AQ-11:

Educational material shall be made available to future homeowners regarding individual measures which can improve the air quality. Topics will include the

environmental benefits of natural gas and propane instead of charcoal barbeques, electric instead of gas powered lawn mowers and leaf blowers, and the benefits of using low VOC cleaners.

A19-14 The commentator recommends new mitigation measures related to electric lawn mowers and leaf blowers. The City has no ordinance requiring the use of electric lawn mowers and leaf blowers in Irvine, and it would not be fair or appropriate to try to selectively impose greater restrictions on a particular project than are imposed on other projects in Irvine. The City would have to study the practical effects of such measures and the cost to residents measured against the air quality effects that could be achieved, and cannot perform that analysis in the context of a single project. See Response A19-13 and Mitigation Measure AQ 11 above.

A19-15 The commentator recommends new mitigation measures related to electric or alternatively fueled sweepers. The City has no ordinance requiring the use of electric or alternatively fueled sweepers in Irvine, and it would not be fair or appropriate to try to selectively impose greater restrictions on a particular project than are imposed on other projects in Irvine. The City would have to study the practical effects of such measures and the cost to residents measured against the air quality effects that could be achieved, and cannot perform that analysis in the context of a single project. See Response A19-8 and Mitigation Measure AQ 9 above.

A19-16 The commentator recommends new mitigation measures related to the use of water based or low VOC cleaning products. Pursuant to existing law, the 2012 Modified Project must comply with AQMD regulations for VOCs. In addition, the City has no ordinance requiring the use of water based or low VOC cleaning products in Irvine, and it would not be fair or appropriate to try to selectively impose greater restrictions on a particular project than are imposed on other projects in Irvine. The City would have to study the practical effects of such measures and the cost to residents measured against the air quality effects that could be achieved, and cannot perform that analysis in the context of a single project. See Response A19-13 and Mitigation Measure AQ 11 above.

A19-17 The commentator recommends additional construction equipment mitigation measures pursuant to CEQA Guidelines Section 15126.4 requiring (1) the use of 2010 and newer diesel haul trucks or, if not available, trucks meeting EPA 2007 model year NOx emissions requirements, and (2) that on-site construction equipment greater than 50 horsepower meet EPA Tier 3 and be outfitted with BACT devices certified by the California Air Resources Board ("CARB"). However, such additional mitigation measures are not required in response to address the 2012 Modified Project's construction air quality impacts.

First, it is critical to note that, although Section 5.3 of the SSEIR concluded that construction of the 2012 Modified Project would result in significant and unavoidable mass criteria pollutant emissions of NOx, VOC, CO, PM_{10} and $PM_{2.5}$, it also concluded that the 2012 Modified Project's localized construction air pollutant concentrations are ***not*** projected to be significant. Of the two thresholds, it is the localized construction air pollutant concentrations threshold that is the more direct

measure of the potential impact on public health. Therefore, from the standpoint of ensuring healthful air quality, there is no need for the 2012 Modified Project to add to its list of construction mitigation measures, as the LST analysis has shown that the localized construction emissions from the 2012 Modified Project will not adversely affect public health.

Further, the 2012 Modified Project already includes Mitigation Measure AQ-2, which requires the preparation of a construction emissions reduction plan requiring contractors to employ all feasible emissions reduction measures, including, without limitation: "Utilize off-road construction equipment that conforms to Tier 3 of the United States Environmental Protection Agency, or higher emissions standards for construction equipment over 50 horsepower that are commercially available…. Use of commercially available Tier 3 or higher off-road equipment, which is:

- Year 2006 or newer construction equipment for engines rated equal to 175 horsepower (hp) and greater;
- Year 2007 and newer construction equipment for engines rated equal to 100 hp but less than 175 hp; and
- Year 2008 and newer construction equipment for engines rated equal to or greater than 50 hp but less than 100 hp."

Finally, neither the City nor the applicant has jurisdiction over on-road or off-road vehicular emissions, including emissions from haul trucks and construction equipment, and CEQA does not expand the City's express or implied powers (CEQA section 21004; CEQA Guidelines section 15040). CARB, which has jurisdiction, has recognized the limitations in updating construction fleets and has already acted to enforce fleet turnovers (i.e., updating) for on-road diesel trucks (see http://www.arb.cagov/msprog/onrdiesel/onrdiesel.htm) and off-road diesel equipment (http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm). It would not be fair or appropriate to try to impose greater restrictions on a particular project until CARB determines such standards should be applied on a broad basis.

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LETTER R1 – Janet B. Neth (1 page)

July 12, 2012

Irvine City Council Members
1 Civic Center Plaza
Irvine, CA 92606-5207

Re: LA Times Article

Dear Council Members:

I am not a resident of the city of Irvine, but am writing in response to an article in the Los Angeles Times on July 11, 2012 regarding a proposal for 10.000 residences to be built in the vicinity of the Great Park "along the perimeter of a retired Marine base…" The article states that your city would potentially receive $200 million dollars from the developer in exchange for re-zoning the area and doubling the housing. The article goes on to state that a draft of an environmental impact report found that this would have little or "no impact at all on wildlife, aesthetics, noise and natural resources."

While I admit that in these economic times $200 million dollars in city coffers is probably too big a carrot to resist, you have got to be kidding if you think 10.000 additional homes will not have a ***huge*** impact on infrastructure, traffic, solid waste, air pollution, energy use, schools, etc. That is like creating something the size of a city-within-a-city to create this volume of homes. R1-1

As one who was born and raised in Orange County in the years before the land development boom I would sincerely hope that the council would not approve this revised plan. I know I am shouting into the wind, but just once I wish quality of life would trump the almighty buck.

Thank you for this opportunity for input.

Sincerely,

Janet B. Neth

Janet B. Neth

Thomas S./Janet B. Neth
248 Monte Vista Ave.
Costa Mesa, CA 92627

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R1. Response to Comments from Janet B. Neth, dated July 12, 2012.

R1-1 This comment is general in nature and does not raise any specific environmental impacts. It is more focused on the development of the Proposed Project itself and speculates on quality of life for the residents in Orange County, something which is not required by CEQA to be addressed in an EIR. The comment also addresses potential economic benefits to the City, but does not identify any physical environmental impacts that would result. CEQA requires only analysis of those issues that potentially create physical environmental impacts. To the extent that the comment generally discusses environmental impacts, these issues have been addressed in the SSEIR as follows: traffic (Section 5.12, Transportation and Traffic); solid waste and energy use (Section 5.13, Utilities and Service Systems), air pollution (Section 5.3, Air Quality) and schools (Section 5.10, Public Services). The commenter mischaracterizes the Proposed Project as "a proposal for 10,000 homes." In fact, 4,894 homes are already approved and vested for development on the site; the proposal at issue provides for up to 4,606 additional units, or 5,806 additional units with the optional conversion units, with a corresponding reduction in non-residential development.

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LETTER R2 – Yu Qinzhu (4 pages)

-----Original Message-----
From: Yu Qinzhu [mailto:qinzhu.yu@gmail.com]
Sent: Friday, July 13, 2012 7:13 PM
To: Barry Curtis
Subject: Re: revision of heritage fields project 2012

Dear Barry,

I am a home owner in Woodbury east. And I received a letter from city of irvine with subject on " notice of completion and notice of availability for the heritage fields project 2012 general plan amendment and zone change draft second supplemental environmental impact report" dated on July 10, 2012 (eir 67229-31 934-748-06).

I strongly oppose to the proposal to increase the dwelling from approved 4894 units to potential 10700 units for various reasons. Using average 2.7 people per household, it's about 30k people.

First of all, please consider potential traffic increase on San canyon/trabbuco/irvine blvd. Local commute to work/school is minimum twice a day per car. Even ignoring other commute such as shopping trips, day care trips etc, expected 60k cars daily commute increase on the local streets. One may say that some days some one must stay at home and does not go out, then I'd like to say those extra shopping trips, day care trips, theater trips etc can offset these cases, and how about non-local visitors' trip to great park/Woodbury/stone gate/Portola spring...? Can you really imagine the picture of tens of thousands cars addition to local traffic in daily basis to handful streets? There already 4894 approved units in heritage field, plus approved units in cypress village, and units in lambert ranch...that's thousands cars increase already. Please, please no more....

R2-1

Secondly, addition of these traffic, and reduce of farmland, the air pollution become a potential problem.

Thirdly, noise will become another problem.

Fourthly, With excessive population density increase, i am also concerned of safety of the region. Will police force be increased accordingly? Will city budget that? Also other public resources to keep the current conditions and standards?

I believe many of others will have same concerns as me , or have other concerns besides above I stated. no matter whether they have chances to receive the letter in mail box, open the letter, or read the letter, no matter whether they have chances to sit down and express their concerns, these concerns and future problems are there...

R2-1 cont.

We have been proud to be irvine residents because the quality of the city and local communities. and please work together with us to enable us continue to be proud of it in the future, 2 years later, 5 years later or 20 years later. I believe you and us are same on this prospective. Quality is more important than quantity. that's the reason why irvine has distinguished itself so far. Current approved 4894 units are right amount. No 10700 units!

Sincerely,

Qinzhu Yu

在 Jul 19, 2012， 5:17 PM， Yu Qinzhu <qinzhu.yu@gmail.com> 写道：

Dear Barry et. Al

Firstly, Thank you very much for replying to me. I have a follow up question based on your feedback.

Reduce commercial and industrial footage and use it as residential instead -- Is that really traffic neutral? Yes, It will reduce traffic from outside that visits these non residential area and neutralize the regular daily traffic (such as work/school) from those households increased.

But, meanwhile the decrease of non-residential footage in community also limits local neighborhood's accessibility to these non-residential places, such as reducing accessibility to certain stores or businesses (originally could be on site in community). One result is that People have make extra trips to these business now is further away. It increases occurrence of trips of local residents, not only for the new increase 5000 units, but also for the already approved 5000 units! It also increases the durability of the trips on roadway for these 10k units since the mileage goes up for these visits....

R2-1 cont.

Simple assumption that the car traffic to 10 acres commercial area is same as to 10 acres residential area will not work and not the reality. An harmony combination of residential footage and commercial footage is an optimal and king.

Please kindly include my follow up question when you talk with planning commission and city council.

Thank you again for hearing us and take it seriously.

Sincerely

Qinzhu

And I want to add and attach an illustration that explains my point below:

Say we have a 3 stories super building on A street with 200 residents each floor on 2nd and 3rd floor. And first floor is for commercial/industry usage with average daily traffic 400 people/visits. When the people lives in the building needs a burger (or a bottle of drink water or dry cleaning or whatever) they will go first floor by Stairs.

Now plan changed. The new plan puts 400 residents on first floor And remove the businesses to B street (simple theory will say that 400 daily foot traffic to the new residential rooms are equivalent to daily 400 commercial visits). But the fact is now, in new plan, with 800 residents live in the building, their daily needs are unchanged. Now we have 800 people need go out to grab that burger from the business moved to B street.

R2-1 cont.

Think about the dynamics and difference of traffic/noises etc. between A street and B street in original plan and revised plan.

Hope this is straight forward enough.

Have a nice evening to you!

Qinzhu Yu

R2. Response to Comments from Qinzhu Yu, dated July 13, 2012.

R2-1 The commentator asks the City to consider potential traffic increases on Sand Canyon Avenue, Trabuco Road and Irvine Boulevard. As summarized in Section 5.12, Transportation and Traffic, intersections along these arterials were analyzed by the Traffic Impact Analysis (see Appendix D of this FSSEIR). For both Option 1 and Option 2, the Traffic Impact Analysis concluded that no significant impacts would occur at these intersections.

The 2012 Modified Project has been designed with a favorable mix of land uses to reduce vehicle miles traveled by improving the jobs/housing balance as compared to the 2011 Approved Project. As noted on page 1-13, Project Design Features of the 2012 Modified Project include its compact/mixed use nature resulting in more localized traffic patterns, which will result in reduced per capita vehicle miles traveled on a local and regional basis. The 2012 Modified Project actually proposes a conversion from non-residential to residential uses that is trip neutral in terms of average daily traffic and any conversion is subject to a trip limit.

With respect to agriculture, the comment is general in nature. Section 5.2, Agricultural Resources, of the SSEIR analyzed the loss of 13 acres of agriculture and concluded that no significant impacts would occur (see pages 5.2-11 to 5.2-21).

With respect to air quality, the comment is general in nature. Section 5.3, Air Quality, of the SSEIR analyzed the potential air quality impacts of the 2012 Modified Project and concluded that no additional significant impacts would occur beyond those already identified in the 2011 Certified EIR (see pages 5.3-17 to 5.3-29).

With respect to noise, the comment is general in nature. Section 5.8, Noise, of the SSEIR analyzed the potential noise impacts from the 2012 Modified Project and concluded that no significant impacts would occur beyond those already identified in the 2011 Certified EIR (see pages 5.8-37 to 5.8-76).

The commentator's other remarks are general in nature and do not address any physical environmental impacts. The comments also raise socio-economic issues, but do not identify any physical environmental impacts that would result. CEQA requires analysis only of those issues that potentially create physical environmental impacts.

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LETTER R3 – Bryan Bailey (1 page)

Valarie Burlingame

Subject: FW: help the great park

-----Original Message-----
From: Bryan Bailey [mailto:btbailey2002@gmail.com]
Sent: Sunday, July 29, 2012 8:15 PM
To: SukheeKangWeb
Subject: help the great park

The city of Irvine has been expanding since the 1960's and is known as one of the safest cities in America. I am proud to be an Irvine resident, but these recent construction projects have been making me increasingly dissatisfied with the direction our city is taking. I remember a time when we used to have back yards and nature trails, but now it seems that the spaces between us and our neighbors are becoming smaller and smaller. I wouldn't be surprised if in a couple of years our windows are mere inches apart.

My main issue is the new construction over the great park. This part of town has had so much new construction that many new communities are not even half occupied. Yet the Irvine Company wants to build five thousand more houses over the land that was originally designated to be our great park.

Where is the demand for these homes? I don't see it. My neighbors don't see it. Who profits from all of this construction and how many of my tax dollars are going into new houses that will most likely remain unoccupied for years? Why were we, as Irvine residents in the area not informed prior to the start of construction? Why are rental prices going up if we're getting all this new housing? These things don't add up for me. And most importantly, why are these new projects made so cheaply that walls show cracks within months? Also as far as the great parks neighborhood is concerned isn't the land they want to build on polluted from the air base? **R3-1**

I'd love to have some clarifications and answers, and hopefully a voice for the next time the Irvine Company wants to take away our small bits of nature in the land of concrete and fake grass. As a resident in one of the brand new apartment communities, I'm seeing all of this first hand and I am not happy in the slightest.

A concerned citizen,

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R3. Response to Comments Bryan Bailey, dated July 29, 2012.

R3-1 The commentator raises a number of general issues that do not address any environmental impacts. To the extent that the comments raise socio-economic issues, but do not identify any physical environmental impacts that would result, no response is necessary. CEQA requires analysis only of those issues that potentially create physical environmental impacts.

The commentator raises questions regarding demand for housing and potential vacancies. As discussed in Section 5.9, Population and Housing, Irvine's population has grown in the last decade, and is expected to grow significantly in the coming years. The applicant, who is Heritage Fields El Toro, LLC, not the Irvine Company, is proposing to construct homes in accordance with this demand.

The commentator also claims that "the Irvine Company wants to build five thousand more houses over the land that was originally designated to be our great park." The commentator misunderstands the 2012 Modified Project, since the type, character and amount of facilities in the Great Park are unchanged in the 2012 Modified Project. The Orange County Great Park consists of approximately 1,300 acres of publicly owned land and is not part of the 2012 Modified Project. The 2012 Modified Project only includes land under private ownership and consists of a proposal for up to 4,606 additional units (or 5,806 additional units with the optional conversion units) with a corresponding reduction in non-residential development.

Finally, the commentator claims that "the land they want to build on [is] polluted from the air base." This statement is incorrect. Section 5.5, Hazards and Hazardous Materials discusses the clean-up of the site in detail.

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4. Revisions to the Draft SSEIR

4.1 INTRODUCTION

This section contains revisions to the DSSEIR based upon (1) additional or revised information required to prepare a response to a specific comment; (2) applicable updated information that was not available at the time of DSSEIR publication; and/or (3) typographical errors. This section also includes additional mitigation measures to fully respond to commenter concerns as well as provide additional clarification to mitigation requirements included in the DSSEIR. The provision of these additional mitigation measures does not alter any impact significance conclusions as disclosed in the DSSEIR. Changes made to the DSSEIR are identified here in ~~strikeout text~~ to indicate deletions and in underlined text to signify additions.

4.2 DSSEIR REVISIONS IN RESPONSE TO WRITTEN COMMENTS

The following text has been revised in response to comments received on the DSSEIR.

Page 1-67, Chapter 1, Executive Summary, is hereby modified as shown below.

TRAN-4 Prior to approval of the last final map for the ~~2011 Approved~~2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the landowner or subsequent property owner shall pay ~~its fair share of~~ the costs of the following mitigation in an amount to be mutually agreed upon between the landowner or subsequent property owner and the City and reflective of the costs of the mitigation at the time of payment:

- 286 Jeffrey Road & Roosevelt: Restripe the existing eastbound approach to provide a shared through/ right turn lane within the existing right-of-way.

- 361 Bake Parkway & Portola Parkway: Restripe the existing northbound approach to provide a shared through/left lane (which currently exists as a through lane) within the existing right-of-way and modify the existing traffic signal operation for a north/south split phase signal operation. Alternatively, restripe the existing northbound approach to provide dual left turn lanes in combination with a single through lane and single right turn lane within the existing right-of-way, and modify signal operation to include northbound right turn overlap phase.

- 374 Lake Forest & Portola Parkway (Pending Projects analysis impact): Convert the existing northbound approach from de-facto right-turn to a dedicated right-turn, and modify the existing traffic signal operation to include right turn overlap phase.

Additional Mitigation Measures for the 2012 Modified Project

TRAN5 **(For specific Project-related non-NITM improvements):** In conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evaluation to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 16. Newport & Irvine – Modification of signal to provide a northbound right turn overlap phase. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 54. Browning & Irvine – Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)

- 221. Culver & Bryan – Addition of a westbound defacto right turn lane. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 286. Jeffrey & Roosevelt – Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)

- 290. Jeffrey & Barranca – Application of PA9C-identified ATMS. (2030. Options 1 & 2)
- 291. Jeffrey & Alton – Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (Post-2030, Options 1 & 2)

- 303. Sand Canyon & I-5 NB ramp/Marine Way – Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)

- ~~306. Sand Canyon & Oak Canyon – Fair Share contribution towards conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right turn lane into a free right turn lane, as identified in the PA40/12~~

~~GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.~~

- 321. Laguna Canyon & Old Laguna Canyon – Application of ATMS, subject to approval by the Director of Public Works. Alternate improvement is the addition of a fourth northbound through lane. (Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- 366. Bake & Rockfield – Fully funded LFTM improvement: Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)

Prior to approval of the first tentative tract/tentative parcel map in District's 2, 3, 5, or 6, the landowner or subsequent project applicant shall prepare a Year 2015, Year 2030 and Post-2030 (or equivalent) focused analysis of the Sand Canyon/ Oak Canyon intersection for the review by the City of Irvine to establish the Combined PA 51 project's fair share responsibility towards the following improvements or mutually acceptable alternative improvements at the Sand Canyon/Oak Canyon intersection if the study re-verifies their need:

- 306. Sand Canyon & Oak Canyon - Fair Share contribution towards – conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right-turn lane into a free-right turn lane, as identified in the PA40/12 GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

The Fair share contribution of the project will be based on the same methodology for determining the fair share as utilized in the NITM Program. The traffic study shall assume land use development based on the then existing General Plan and any pending development projects as of the date of the approved scope of work for such a study.

Page 1-70, Chapter 1, Executive Summary, is hereby modified as shown below.

TRAN7 **(If pending projects are approved, Project-related non-NITM improvements):** In the event that all of the pending (not approved) projects analyzed are approved and in conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evaluation to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for

the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

Page 1-85, Section 1, Executive Summary, is hereby modified as follows:

BIO-3 The City shall continue to work with State and federal agencies during the implementation of the proposed project to implement the revegetation/restoration plan for the wildlife corridor. Measures such as sight and sound barriers, including artificial sound walls and natural diversions (e.g. hedges and tree lines) shall be incorporated into corridor design to ensure the viability of the corridor. The City shall implement the corridor consistent with the ~~design criteria and viability analysis established in the OCGP FEIR~~2012 Wildlife Corridor Plan.

Page 3-16, Section 3, Project Description, is hereby modified as follows:

The 2012 Modified Project includes the conversion of institutional and office uses to Multi-Use and Medical Science in District 1 North, which is referred to as "Option 1." Option 2 includes the conversion of Institutional and Office land uses to Multi-Use or Medical and Science land uses in District 1 North, and in addition (i) the relocation of Multi-Use and Retail from District 1 South to District 1 North; (ii) relocation of residential units from District 1 South to District 1 North; and (iii) changes in Districts 1 North to accommodate the approved residential units displaced from a portion of District 1 South.

Modifications to the five VTTMs approved as part of the 2011 SEIR Project are not being proposed as part of this application. If subsequent applications are determined to be inconsistent with the existing VTTMs at a future date, then amendments to those VTTMs will be processed, as needed. Appropriate CEQA analysis will be performed at that time."

Pages 3-22 and 3-31, Section 3, Project Description, are hereby modified as follows:

- Other insignificant modifications as necessary to implement the 2012 Modified Project.

Page 5.1-5, Section 5.1, Aesthetics, is hereby modified as follows:

Therefore, the aesthetic impacts of the 2012 Modified Project's proposed conversion of non-residential uses to residential uses, as compared to the 2011 Approved Project, are ~~not expected to be~~ less than significant, and aesthetic impacts may improve with implementation of the proposed conversion.

Page 5.3-29, Section 5.3, Air Quality, is hereby modified as shown below. Table 1-1 in Chapter 1, Executive Summary, has also been modified to include Mitigation Measures AQ-6 through AQ-11.

5.3.8 Additional Mitigation Measures for the 2012 Modified Project

Construction Phase

No additional mitigation measures are identified that would reduce the 2012 Modified Project's construction ~~and operational~~ air pollutant emissions to less than significant levels.

Operational Phase

The following mitigation measures would reduce the 2012 Modified Project's operational air pollution emissions:

AQ-6

a. Install tiered vegetative landscaping, where feasible, between I-5 Freeway and any sensitive land use located within 500 feet of I-5 Freeway.

b. Prepare a health risk assessment when sensitive land use buildings are located within 500 feet of I-5 Freeway to ensure particulate matter at 70 percent lower than estimated at emission sources.

c. Install an air filtration system on the Heating, Ventilation and Air Conditioning system within a sensitive land use building located within 500 feet of I-5 Freeway.

AQ-7 The 2012 Modified Project shall include: 1) electric car charging stations for non-residential land uses (excluding houses of worship) with 75 or more parking spaces and shall provide designated areas for parking of zero emission vehicles (ZEVs) for car-sharing programs at a rate of at least 1 per 100 parking spaces for non-residential uses.

AQ-8 The residential neighborhoods within the 2012 Modified Project shall be designed for electric loads that can accommodate vehicle charging.

AQ-9

a. To the extent fueling stations are constructed within the Project, potential fuel service providers will be encouraged to provide alternative fuel (i.e. electric and natural gas).

b. Preferential parking for low-emission and fuel-efficient vehicles will be provided in accordance with CalGreen Section 5.106.5.2

AQ-10 The applicant and its successors in interest will offer solar facilities as an option on all residential structures, or consistent with the current building code at the time of building permit.

AQ-11 Educational material shall be made available to future homeowners regarding individual measures which can improve the air quality. Topics will include the environmental benefits of natural gas and propane instead of charcoal barbeques, electric instead of gas powered lawn mowers and leaf blowers, and the benefits of using low VOC cleaners.

5.3.9 Level of Significance After Additional Mitigation

Impact 5.3-2

Like the 2011 Approved Project, the 2012 Modified Project would result in significant and unavoidable short-term construction air quality impacts due to emissions of VOC, NO_x, CO, PM_{10} and $PM_{2.5}$ at levels above the applicable thresholds. PPPs 3-1 through 3-4 and Mitigation Measures AQ-1 and AQ-2 would reduce construction emissions to the extent feasible. However, like the 2011 Approved Project, Impact 5.3-2 would remain significant and unavoidable even after mitigation.

Impact 5.3-3

Like the 2011 Approved Project, long-term operation of the 2012 Modified Project (with, and without optional conversion) would result in significant and unavoidable impacts due to emissions of VOC, NO_X, CO, and $PM_{2.5}$. PPP 3-5, PDFs 4-1, 4-2, 4-7, and 4-8, and Mitigation Measures AQ-3 through AQ-5 and AQ-7 through AQ-11 would reduce operational phase air quality impacts to the extent feasible. However, like the 2011 Approved Project, Impact 5.3-3 would remain significant and unavoidable even after mitigation.

Page 5.3-30, Section 5.3, Air Quality, is hereby modified as follows:

Impact 5.3-3

Like the 2011 Approved Project, long-term operation of the 2012 Modified Project (with, and without optional conversion) would result in significant and unavoidable impacts due to emissions of VOC, NOX, CO, and PM2.5. PPP 3-5, PDFs 4-1, 4-2, 4-7, and 4-8, and Mitigation Measures AQ-3 through AQ-5 and AQ-7 through AQ-11 would reduce operational phase air quality impacts to the extent feasible. However, like the 2011 Approved Project, Impact 5.3-3 would remain significant and unavoidable even after mitigation.

Section 5.6, Hydrology and Water Quality, has been substantially revised and is included at the end of this chapter in its entirety.

Page 5.10-4, Section 5.10, Public Services, is hereby modified as follows:

The impacts associated with the construction ~~operation~~ of public facilities, including fire stations, have been addressed within the various topical sections of this DSSEIR.

Page 5.10-10, Section 5.10, Public Services, is hereby modified as follows:

Irvine Unified School District (IUSD)

The majority of the Proposed Project Site is served by IUSD. There are currently 33~~48~~ schools in IUSD, including 20~~22~~ elementary schools, two K-8 schools, five middle schools, four comprehensive high schools, and two alternative education schools~~, and~~ There are 15 Title I schools that are housed on existing sites throughout the IUSD's district (IUSD 2012). The overall capacity of IUSD schools is shown in Table 5.10-2.

Page 5.10-13, Section 5.10, Public Services, is hereby modified as follows:

Table 5.10-6
Capacity of SVUSD Schools Nearest to the Proposed Project Site

School Name	*Grade Level*	*Current Enrollment (~~2010-2011~~2012)*[1]	*Current Capacity*[~~2~~1]	*Current Open Seats*
Elementary School				
Olivewood Elementary School	K-6	521	552	31
Rancho Canada Elem. School	K-6	673727	880728	2071
Santiago Elementary School	K-6	601	576	-25
Middle School				
Serrano Intermediate	7-8	1,3811,367	1,3301,807	-51440
High School				
El Toro HS	9-12	2,8332,743	2,4752,986	-358243

Sources:
[1] SVUSD 2012~~a~~
[2] ~~2003 OCGP EIR~~

~~Despite the current lack of available seats at Serrano Intermediate School and El Toro High School, the SVUSD is currently experiencing a multi-year decline in student enrollment. This decline has impaired the District's ability to maintain its current level of service and could result in staff reductions and school closures (SVUSD 2012b). However, if the schools were to remain open and staff levels were to remain the same, the decline in student enrollment represents available capacity for existing SVUSD schools to accommodate additional students in the future.~~ With the exception of Serrano Intermediate School, schools in the SVUSD nearest to the Proposed Project Site are currently operating near or above their current capacity. Expansion of these existing facilities would therefore likely be necessary upon implementation of the 2012 Modified Project.

Page 5.10-14, Section 5.10, Public Services, is hereby modified as follows:

- ***Level 1 Fee:*** Education Code Section 17620 provides the basic authority for school districts to levy fees against construction for purposes of funding construction or reconstruction of school facilities, subject to limits set forth in Government Code Section 65995. Fees are charged based

on "assessable space" – which includes all of the square footage within the perimeter of a structure. The determination of the assessable space within the perimeter of a structure would be made by the City, in accordance with the City's building standards. ~~Effective May 7, 2012, t~~The Level 1 fee for new residential development within the IUSD and SVUSD is $3.20 per square foot. The fee for commercial/industrial development within the IUSD and SVUSD is $0.51 per square foot. ~~The Level 1 fee for new residential development with the SVUSD is also $2.97 per square foot. The fee for commercial/industrial development within the SVUSD is $0.47 per square foot.~~ (City of Irvine 2012, May; SVUSD 2012)

Page 5.10-15, Section 5.10, Public Services, is hereby modified as follows:

Using IUSD's projections, the 2011 Certified EIR determined that within five years, no open seats would be available at any of the elementary, middle or high school facilities that would otherwise serve the area of the Approved Project Site. However, this impact was determined to be less than significant since developers of the 2011 Approved Project would be required to pay school impacts fees in accordance with SB 50. Those fees would be used by IUSD to reduce any impacts to the school system and would, pursuant to California Government Code Section 65995(h), constitute full mitigation of the impacts of the 2011 Approved Project related to the provision of adequate school facilities.

Subsequent to certification of the 2011 SEIR, Heritage Fields entered into a school mitigation agreement with IUSD (the "HF Mitigation Agreement") which included construction of two K-8 schools and one 2,600-student high school. Section 7.2 of the HF Mitigation Agreement acknowledges that the applicant may seek entitlements beyond those for the 2011 project, and that additional provision for school facilities may be required to accommodate project students generated by such additional entitlements. The HF Mitigation Agreement provides that (1) K-8 school facility impacts of development pursuant to such additional entitlements "shall be mitigated in the same manner and to the same extent" as those from the 2011 project as set forth in the HF Mitigation Agreement; and (2) if students from the applicant's development exceed 50% of the capacity of the High School, the applicant shall pay its proportionate share of the cost of high school facilities needed to accommodate such additional students. The School Mitigation Agreement provides that by complying with the terms of that agreement, "Heritage shall be deemed to have fulfilled and mitigated Heritage's entire obligation to assist in the construction or funding school facilities to serve the Project Students." Thus, if implemented, the Mitigation Agreement will constitute full mitigation for the 2012 Modified Project.

Page 5.10-16, Section 5.10, Public Services, is hereby modified as follows:

Development of 4,606 additional dwelling units (or 5,806 additional dwelling units with the optional conversion) under the 2012 Modified Project would generate school-age children who would require school services and facilities from IUSD and SVUSD, above those that would be needed to serve the 2011 Approved Project. Using districtwide student generation rates, the 2012 Modified Project would generate approximately 875 to 1,053 additional students in the IUSD and approximately ~~492~~1,078 to ~~738~~1,616 additional students in the SVUSD compared to the 2011 Approved Project. Using IUSD school needs analysis student generation rates, the 2012 Modified Project would generate approximately 818 to 836 additional students in the IUSD compared to the 2011 Approved Project. The projected additional student population under the 2012 Modified Project is identified in Tables 5.10-8a, 5.10-8b, 5.10-9a, and 5.10-9b

Page 5.10-19, Section 5.10, Public Services, is hereby modified as follows:

Table 5.10-9a
2012 Modified Project Student Generation – SVUSD
(Scenario 3)

Grade Level	Dwelling Unit Type	Maximum Additional Units[1]	Districtwide Student Generation Rate (student per dwelling unit)[2]	Projected Additional Students
K-6	Detached	0	~~0.34~~0.2458	0
	Attached	2,000	~~0.10~~0.2937	200588
	Subtotal	**2,000**	—	**~~200~~588**
7-8	Detached	0	~~0.065~~0.0830	0
	Attached	2,000	~~0.046~~0.0773	~~92~~155
	Subtotal	**2,000**	—	**~~92~~155**
9-12	Detached	0	~~0.16~~0.1971	0
	Attached	2,000	~~0.10~~0.1671	200335
	Subtotal	**2,000**	—	**~~200~~335**
	TOTAL	**2,000**	—	**~~492~~1,078**

~~SFD = single family detached~~
~~SFA = single family attached~~
~~MF = multifamily~~
[1] The exact number of dwelling units in each school district is unknown. The numbers and types of dwelling units analyzed in this table represent a plausible scenario for units developed within SVUSD boundaries on the Proposed Project Site.
[2] Source: ~~2003 OCGP EIR~~SVUSD 2012

Table 5.10-9b
2012 Modified Project Student Generation – SVUSD
(Scenario 4)

Grade Level	Dwelling Unit Type	Maximum Additional Units[1]	Districtwide Student Generation Rate (student per dwelling unit)[2]	Projected Additional Students
K-6	Detached	0	~~0.34~~0.2458	0
	Attached	3,000	~~0.10~~0.2937	300882
	Subtotal	**3,000**	—	**~~300~~882**
7-8	Detached	0	~~0.065~~0.0830	0
	Attached	3,000	~~0.046~~0.0773	138232
	Subtotal	**3,000**	—	**~~138~~232**
9-12	Detached	0	~~0.16~~0.1971	0
	Attached	3,000	~~0.10~~0.1671	300502
	Subtotal	**3,000**	—	**~~300~~502**
	TOTAL	**3,000**	—	**~~738~~1,616**

~~SFD = single family detached~~
~~SFA = single family attached~~
~~MF = multifamily~~
[1] The exact number of dwelling units in each school district is unknown. The numbers and types of dwelling units analyzed in this table represent a plausible scenario for units developed within SVUSD boundaries on the Proposed Project Site.
[2] Source: ~~2003 OCGP EIR~~SVUSD 2012

Page 5.10-20, Section 5.10, Public Services, is hereby modified as follows:

SVUSD

~~The current multi-year decline in SVUSD student enrollment represents the potential for existing SVUSD schools to accommodate additional students generated by the 2012 Modified Project.~~ Although the SVUSD can accommodate some student growth generated by the 2012 Modified Project, SVUSD schools cannot accommodate all of the students projected to be generated by the project. The need for additional services is addressed through compliance with school impact fee assessment. SB 50 (Chapter 407 of Statutes of 1998) sets forth a state school facilities construction program that includes restrictions on a local jurisdiction's ability to condition a project on mitigation of a project's impacts on school facilities in excess of fees set forth in Education Code Section 17620. These fees are collected by school districts at the time of issuance of building permits for commercial, industrial, and residential projects. The Level 1 fee for new residential development with the SVUSD is ~~$2.97~~$3.20 per square foot. The fee for commercial/industrial development within the SVUSD is ~~$0.47~~$0.51 per square foot. Service provider correspondence from SVUSD indicates that impact fees would "not fully mitigate" impacts caused by construction of new residential and commercial/industrial uses (SVUSD 2012). However, according to state law, ~~With payment of the SB 50 Fees,~~ no significant impacts to the SVUSD ~~will~~would result from implementation of the 2012 Modified Project upon payment of SB 50 fees. This topic is discussed further in Section 5.10.3.5, *Cumulative Impacts*, below.

Page 5.11-9, Section 5.11, Recreation, is hereby modified as follows:

Table 5.11-5a
Additional Parkland Demand Generated by 2012 Modified Project

Residential Unit Types	Number of Units	Estimated Persons per Household[1]	Total Persons	Required Parkland, Acres	
				Per 1,000 Residents	Total
Additional Single-Family	1,194	2.94	3,510	3	10.53
Additional Multiple Family Units (Market Rate)	2,900	2.29	6,641	3	19.92
Additional Multiple Family Units (Affordable)	512	2.29	1,172	2	2.35
Additional Units Total	**4,606**	**N/A**	**11,324**	**N/A**	**32.80**

[1] General Plan Table A-3 (per U.S. Census and State Department of Finance).

Table 5.11-5b
Additional Parkland Demand Generated by 2012 Modified Project with Optional Conversion

Residential Unit Types	Number of Units	Estimated Persons per Household[1]	Total Persons	Required Parkland, Acres	
				Per 1,000 Residents	Total
Additional Single-Family	1,505	2.94	4,425	3	13.27
Additional Multiple	3,655	2.29	8,370	3	25.11

Family Units (Market Rate)					
Additional Multiple Family Units (Affordable)	646	2.29	1,479	2	2.96
Additional Units Total	**5,806**	**N/A**	**14,274**	**N/A**	**41.34**

[1] General Plan Table A-3 (per U.S. Census and State Department of Finance).

Section 5.12, Transportation and Traffic, has been substantially revised and is included at the end of this chapter in its entirety.

Section 5.13, Utilities and Service Systems, has been substantially revised and is included at the end of this chapter in its entirety.

Page 8-5, Section 8, Impacts Not Found to Be Significant, is hereby modified as follows:

F)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR. Approximately 974 acres offsite, in Planning Area Zone 3 of Existing PA 51, have been designated as a habitat preserve in accordance with the Orange County Central-Coastal NCCP. The habitat preserve has been conveyed to the **Federal Bureau of Investigation ("FBI").** ~~Federal Aviation Administration ("FAA"), and it is expected that it will be managed in the future by the US Fish and Wildlife Service.~~ None of the areas to be developed under the 2011 Approved Project or the 2012 Proposed Project is designated as habitat preserve. Therefore, development of the 2012 Modified Project would not conflict with an NCCP or Habitat Conservation Plan and no impacts would occur with the 2012 Modified Project as compared to the 2011 Approved Project.

4.3 ADDITIONAL DSSEIR REVISIONS

The following text has been revised to be consistent with updated information.

Page 1-64, Section 1.1, Executive Summary, and Page 5.12-134, Section 5.12, Transportation and Traffic, are hereby modified as follows (text in italics was underlined):

A. Introduction

The purpose of this document is to provide an outline for a comprehensive TMP for the Planning Area~~s 30 and~~ 51 ("Great Park TMP"). This report is not intended to provide the specific details of the plan, but rather to highlight the key components and provide direction for subsequent detailed planning and implementation activities. When preparation of the TMP is undertaken, all of the agency and stakeholders will be invited to provide input.

The applicant may elect to annex Combined PA 51 ~~and a portion of Planning Area 30~~ into the Irvine Spectrum Transportation Management Association (Spectrumotion). Spectrumotion is a private, non-profit Transportation Management Association (TMA) formed to reduce traffic congestion in Irvine Spectrum. Spectrumotion promotes, markets, and subsidizes alternatives to solo-commuting and assists the business community in complying with trip reduction related requirements. Membership is mandatory to property owners with deed restrictions requiring participation in the TMA. Membership dues provide the funding for the Association and its programs, which offer a variety of employer and commuter services focused on reducing vehicular trip generation.

In the event that the applicant elects not to annex into Spectrumotion, a TMP similar to that provided by Spectrumotion will be developed and implemented. This document sets forth the components of the TMP should it be necessary.

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services ((i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

C. Transportation Management Plan Implementation

As part of the TMP, a process will be established to monitor its effectiveness in reducing peak hour trip generation in the Combined PA ~~30 and~~ 51. Provision shall be made for the Plan to be modified as appropriate to enhance its effectiveness.

Page 1-84, Section 1, Executive Summary, is hereby modified as follows:

PDF 10-3 The project lighting for development adjacent to the western edge of the Relocated Wildlife Corridor Feature will be designed to include berms, vertical offsets, and screening planting to minimize the nighttime lighting at the western boundary of the Relocated Wildlife Corridor Feature.

PDF 10-4 The western boundary of the Relocated Wildlife Corridor Feature will be designed to include berms or other vertical offsets to minimize potential noise impacts at the western boundary of the Relocated Wildlife Feature.

BIO-1 Prior to approval of a subdivision map for each project area, a focused survey for the southern tarplant, mountain plover, and burrowing owl shall be conducted. Prior to approval of a subdivision map for development within, or in proximity to Serrano Creek, a focused survey shall be conducted for the least Bell's vireo and southwestern willow flycatcher. Should the focused survey identify a significant population of southern tarplant or mountain plover, or the presence of burrowing owls, least Bell's vireo, or southwestern willow flycatcher in an area proposed for development, impacts shall be avoided through incorporation of the species into an open space easement or if impacts cannot be avoided, then mitigation shall be negotiated through consultation with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and ~~Game (CDFG)~~Wildlife (CDFW).

BIO-2 Prior to approval of a subdivision map for each project area, a wetland delineation shall be performed for all areas within the master plan sub-area that contain the potential for wetland habitat and/or jurisdictional waters. The loss of impacted wetlands shall be mitigated through the implementation of a wetland mitigation plan prepared and accepted by the appropriate agency (i.e., U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and ~~Game~~Wildlife). Wetlands impacted on-site shall be mitigated through on-site or off-site replacement, re-creation (i.e. within the proposed wildlife corridor), and/or revegetation as deemed acceptable by the appropriate jurisdictional agencies.

Page 1-87, Section 1, Executive Summary, is hereby modified as follows:

CULT-1 Prior to subdivision for development, a detailed archaeological report(s) shall be prepared within ~~PAs 51 and 30~~Combined PA 51. This report(s) shall specifically address the potential for encountering archaeological resources at the time specific development is proposed. The report(s) shall provide recommendations to prevent degradation of archaeological resources

such as site avoidance and data recovery. Recommendations contained in the report shall be implemented. Compliance with this measure shall be verified by the Community Development Department.

CULT-2 Monitoring of excavation and grading activities associated with future development in ~~PAs 51 and 30~~Combined PA 51 shall be conducted by a certified archaeologist in accordance with the report required in Mitigation Measure Cult1. If resources are encountered in the course of ground disturbance, the archaeological monitor shall be empowered to halt grading and to initiate an archaeological testing program. The testing shall include recordation of artifacts, controlled removal of the materials, and an assessment of their importance under CEQA and the City's local guidelines. Compliance with this measure shall be verified by the Community Development Department.

CULT-3 Prior to the issuance of grading permits and/or building permits for any future development in ~~PAs 51 and 30~~Combined PA 51, a detailed mitigation program shall be submitted by the applicant to the City of Irvine to address archaeological resources discovered during grading. Provisions of the program shall include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be a unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation shall be available. Work may continue on other parts of the construction site while archaeological resource mitigation takes place. The City of Irvine has standard conditions applied prior to the issuance of grading permits when a project site includes potentially significant archaeological sites. These include retaining a qualified archaeologist, establishing procedures for cultural and scientific resource surveillance, and protection of any resources discovered during the grading process. Compliance with this measure shall be verified by the Community Development Department.

Page 5.2-19, Section 5.2, Agricultural Resources, is hereby modified as follows:

Intensive agriculture in Orange County is declining in viability, for reasons listed above in Section 5.2.1. Only one of the seven reasons, urbanization, is among the reasons for proposed development of the affected farmland within the Proposed Project Site. The 2012 Modified Project would convert 13 acres of Prime Farmland to 1.4 Preservation. If the requested zone change is approved by the City of Irvine, the proposed use of the 13 acres under the 2012 Modified Project would not conflict with the zoning designation for the area, and no adverse impact would occur. In addition, use of the 13-acres for the Relocated Wildlife Corridor Feature would not affect any other agricultural land since the 13-acre site is surrounded by existing or planned urban uses. ~~residential use to provide additional housing needed near a large employment center, Irvine Spectrum, and near additional proposed job-generating land uses included in the 2012 Modified Project. In addition, this proposed housing would be 0.5 mile southeast of the Irvine Station; thus, development of housing on the affected farmland would conform to City, State, and regional policies supporting alternative transportation.~~ The LESA model evaluates land within 0.25 mile of the Proposed Project Site, and thus involves a partial analysis of cumulative impacts on conversion of farmland to non-agricultural uses. In light of the establishment and implementation of the City's Agricultural Legacy Program, the use of 13 acres of prime farmland for preservation uses by the 2012 Modified Project would not be cumulatively considerable.

Page 5.3-17, Section 5.3, Air Quality, is hereby modified as follows:

Impact 5.3-1: LIKE THE 2011 APPROVED PROJECT, THE 2012 MODIFIED PROJECT IS CONSISTENT WITH THE APPLICABLE AIR QUALITY MANAGEMENT PLAN. [IMPACT AQ-1]

Page 5.4-15, Section 5.4, Greenhouse Gas Emissions, is hereby modified as follows:

PPP 4-3 **Building and Energy Efficiency Standards (CCR Title 24):** Prior to the issuance of a building permit for residential, commercial, or office structures in the Proposed Project Site, development plans for these structures shall be required to demonstrate that the project meets the ~~2008~~2012 Building and Energy Efficiency Standards. Commonly known as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The ~~2008~~2012 standards are approximately ~~15~~25 percent more energy efficient than the ~~2005~~2008 Building and Energy Efficiency Standards. Plans submitted for building permits shall include written notes demonstrating compliance with the ~~2008~~2012 energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits. Design strategies to meet this standard may include maximizing solar orientation for daylighting and passive heating/cooling, installing appropriate shading devices and landscaping, utilizing natural ventilation, and installing cool roofs. Other techniques include installing insulation (high R value) and radiant heat barriers, low-e window glazing, or double-paned windows.

Page 5.4-16, Section 5.4, Greenhouse Gas Emissions, is hereby modified as follows:

PPP ~~3-4~~4-6 **California Low Carbon Fuel Standard:** On January 18, 2007, Governor Arnold Schwarzenegger issued Executive Order S-1-07 requiring the establishment of a Low Carbon Fuel Standard ("LCFS") for transportation fuels. This statewide goal requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020. Regulatory proceedings and implementation of the LCFS have been directed to CARB. The LCFS has been identified by CARB as a discrete early action item in the Scoping Plan. CARB expects the LCFS to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Scoping Plan work in tandem with one another. To avoid the potential for double-counting emission reductions associated with AB 1493 (Pavley), the Scoping Plan has modified the aggregate reduction expected from the LCFS to 9.1 percent.

Page 5.4-19, Section 5.4, Greenhouse Gas Emissions, is hereby modified as follows:

PDF 4-8 **Building Energy Efficiency:** Residential dwellings and non-residential buildings which receive building permits after January 1, 2014 will be constructed so that they achieve ~~15 percent higher energy efficiency than the applicable standards set forth in the 2008 California~~ the Energy Commission's 2013 Building ~~and~~ Energy Efficiency Standards (Title 24, Part 6 of the California Building Code) ~~or meet the standards in effect at the time of issuance of building permit. The Energy Commission's 2013 Building Energy Efficiency Standards~~

which are 25 percent more efficient than the 2008 standards for residential construction and 30 percent more efficient for nonresidential construction~~. The 2013 Energy Efficiency Standards, which take effect on January 1, 2014, offer builders more efficient windows, insulation, lighting, ventilation systems and other options that would reduce energy consumption in homes and businesses.~~ or meet the standards in effect at the time or issuance of the building permit.

Page 5.8-75, Section 5.8, Noise, is hereby modified as shown below. Table 1-1 in Chapter 1, Executive Summary, has also been modified to show this change.

N-1 Prior to the issuance of building permits for lots facing or located near major highways such as Irvine Boulevard, the project applicant or its successor shall provide a final noise study to the Director of Community Development that demonstrates how the exterior and interior noise requirements (65 dBA CNEL and 45 dBA CNEL, respectively) of the City of Irvine General Plan Noise Element will be met. To attain the exterior and interior noise requirements, the final noise study shall include, but not be limited to the following measures, in addition to such measures as the final noise study determines are required and shall be shown on the final map:

Exterior

- Provide a minimum six-foot high noise barrier for single-family detached residences shown in Figures 5.7-3 through 5.7-7 of this ~~DSEIR~~SSEIR.

Sections 5.6, Hydrology and Water Quality, 5.12, Transportation and Traffic, and 5.13, Utilities and Service Systems, are included in their entirety on the following pages.

5.6 HYDROLOGY AND WATER QUALITY

This section compares the 2012 Modified Project's potential impacts on hydrology and water quality to those of the 2011 Approved Project. The analysis in this section is based, in part, upon the following technical studies:

- *Hydrology Study Heritage Fields Project 2012 - General Plan Amendment and Zone Change*, RBF Consulting, June 15, 2012.

- *Project Water Quality Technical Report – Great Park Neighborhoods TTOD,* ENGEO Incorporated, June 22, 2012, Updated October 9, 2013.

These studies are included in their entirety in Appendices G and H of this DSSEIR. In addition, the following previously prepared technical studies were used in this analysis and are available for review at the City of Irvine, Community Development Department:

- *Compliance Report for PA 51 and 30 Watershed Updated Marshburn Channel, Bee Canyon Channel, Agua Chinon Channel, and Borrego Canyon Channel,* RBF Consulting, March 2011.

- *Conceptual Project Water Quality Management Plan (WQMP), Updating the Integrated Master Plan of Drainage, Water Quality and Habitat Mitigation, Orange County Great Park Neighborhoods.* RBF Consulting, April 20, 2009, updated August 11, 2011.

Hydrology and Water Quality Summary

Hydrology

The 2003 OCGP EIR determined that although existing drainage patterns and stream courses would not be substantially altered by the development of the proposed OCGP development, project-related flood control facilities would be required to control the rate and amount of surface water runoff to ensure that the development would not create significant flooding impacts on- or off-site. Therefore, Mitigation Measure H/WQ 3 was adopted, which required that, prior to approval of the first tentative tract or parcel map for Existing Planning Areas 30 and 51, detailed hydrologic and hydraulic analyses be conducted in accordance with Orange County Flood Control District ("OCFCD") methodologies and standards and the Flood Control Master Plan for San Diego Creek, as well as any additional guidelines in effect at the time of project design, as these studies would provide the information needed in order to design the master plan for drainage, which includes the required flood control facilities.

To implement Mitigation Measure H/WQ 3, hydraulic studies were prepared and recommendations made for the specific development approved within Existing Planning Areas 51 and 30, as that development was refined over the later years that took into consideration improvements identified in the San Diego Creek Flood Control Master Plan and to the major drainages, including Marshburn Channel, Bee Canyon Channel, Agua Chinon Channel, the Borrego Channel, Serrano Creek, and Upper San Diego Creek. In November 2008, the City and the County of Orange approved the following updates to the Flood Control Master Plan for San Diego Creek (collectively, "2008 Master Plans"):

- Update to the San Diego Creek Master Plan – Planning Area 51/30 for Bee Canyon, Agua Chinon, Borrego, Serrano and Upper San Diego Creek;

- *Planning* Area 51 Marshburn Watershed Update

These 2008 Master Plans provide the design for the backbone drainage facilities for the development approved through that date within Existing Planning Areas 51 and 30.

Subsequently, modifications to the 2008 Master Plan development were proposed by the 2011 Approved Project and analyzed in the 2011 Certified EIR. In April of 2011, a Compliance Report was prepared that compared the changes in land use and watershed boundaries in the 2011 Certified EIR to those in the 2008 Master Plan, and determined that there were no impacts to the peak discharge. However, since the watersheds were revised from the 2008 Master Plans, an amendment was required to the 2008 Master Plans. In September 2011, the following updates to the Flood Control Master Plan for San Diego Creek (collectively, "2011 Master Plans") were amended and approved by the City and the County of Orange:

- *Amendment* to the San Diego Creek Master Plan – Planning Area 51/30 for Bee Canyon, Agua Chinon, Borrego, Serrano and Upper San Diego Creek;

- *Planning* Area 51 Marshburn Watershed Update

These 2011 Master Plans included the backbone drainage facilities needed to accommodate the development of the 2011 Approved Project (once the changes analyzed in Addendum 8 were approved), and ensure that the development of the 2011 Approved Project would result in less than significant hydrology impacts.

For the development proposed as the 2012 Modified Project, a hydrology study was prepared that compares the 2012 Modified Project to the 2011 Master Plans, to assess whether the 2012 Modified Project would result in watershed boundary changes, changes to storm drain alignments or changes in land uses, and to compare the discharges of the two development scenarios. As explained in Section 5.6.1, the hydrology study concluded that there would be only slight changes that would not result in significant hydrology impacts. When tentative maps are submitted to the City for areas not already mapped, subsequent hydrology studies that are specific to those maps will be prepared that are in compliance with Master Plan of Drainage.

Water Quality

The 2003 OCGP EIR determined that the development that the City approved for Existing Planning Areas 51 and 30 in May of 2003 could result in impacts to the water quality of protected downstream water bodies in the Newport Bay watershed. Therefore, Mitigation Measures H/WQ 1 and H/WQ 2 were adopted with the approval of the 2003 OCGP EIR. H/WQ 1 required that, prior to the issuance of a grading permit for Existing Planning Areas 30 and 51 the applicant must submit a Water Quality Management Plan ("WQMP") that identifies Best Management Practices ("BMPs") to be used to control predictable pollutant runoff during project operations. Among other things, the WQMP was required to identify, at a minimum, the routine structural and non-structural measures specified in the Drainage Area Master Plan adopted for the County of Orange, the various cities of Orange County and the Orange County Flood Control District ("DAMP") Appendix which details implementation of BMPs applicable to a project, the assignment of long-term maintenance responsibilities and the locations of structural BMPs.

In addition, H/WQ 2 requires demonstration that all stormwater runoff and dewatering discharges from the Proposed Project Site be managed to the Maximum Extent Practicable (MEP) or treated as appropriate to comply with water quality requirements identified in the SARWQCB's Basin Plan, including the Total Maximum Daily Load ("TMDL") Implementation Plan adopted for the San Diego Creek/Upper Newport Bay Watershed.

By way of background, the DAMP was adopted in March 2003, and requires the preparation of a post-construction WQMP for each project that demonstrates that the project's BMPs will meet established waste discharge requirements. The DAMP standards take a watershed scale approach to water quality issues, and are periodically updated based on regional water quality studies. These studies include additional specific constituents of concern (TMDLs) and broader objectives (Beneficial Uses). Also, the MEP standard associated with water quality mitigation is reevaluated periodically based on advances in technology associated with project design features and regulated through the Santa Ana RWQCB and the Orange County DAMP standards.

In addition, in June of 2005 the Irvine Ranch Water District (IRWD), in cooperation with the County of Orange and the Cities of Irvine, Lake Forest, Newport Beach, Orange, Santa Ana and Tustin, developed a Natural Treatment System (NTS) Master Plan to address regional water quality treatment needs in these particular areas of the San Diego Creek watershed. The goal of the NTS Master Plan is to improve water quality in the San Diego Creek and its tributaries, and to complement the County- and cities-led watershed activities for compliance with TMDL target. Portions of the Proposed Project Site are located within the area covered by the NTS Master Plan.

To implement H/WQ 1 and H/WQ 2, in 2009, a Conceptual Project Water Quality Management Plan (WQMP), Updating the Integrated Master Plan of Drainage, Water Quality and Habitat Mitigation, Orange County Great Park Neighborhoods was prepared, and approved by the City, for the development within Existing Planning Areas 51 and 30 approved through that date. In conformance with DAMP requirements, and incorporating applicable sections of the IRWD NTS Master Plan, this document identifies the post-construction BMPs to be incorporated into the development, including source control, site design and treatment control measures, and incorporates sites within Existing Planning Areas 51 and 30 for new water quality basins and/or NTS facilities in addition to existing NTS Site 18.

In August of 2011, the City approved an update to the Conceptual Project Water Quality Management Plan for the 2011 SEIR Approved Project. In addition to providing the post-construction BMPs for the 2011 Approved Project, it also outlines specific water quality management plans to be incorporated into each neighborhood as project planning progresses.

For the development proposed as the 2012 Modified Project, a water quality technical report was prepared in June 2012 that compared the water quality impacts of the 2012 Modified Project to those of the 2011 Approved Project, comparing their overall net impervious area, their land uses and their pollutants of concern. The water quality technical report concluded that there would be virtually no changes and, therefore, that the 2012 Modified Project would not result in significant water quality impacts. When tentative maps are submitted to the City for areas not already mapped, subsequent WQMPs that are specific to those maps will be prepared which are in compliance with Conceptual Project Water Quality Management Plan.

5.6.2 Hydrology

5.6.2.1 Environmental Setting

The Proposed Project Site lies within the San Diego Creek watershed, which is 105 square miles and encompasses portions of the Cities of Irvine, Tustin, Santa Ana, Costa Mesa, Lake Forest, Laguna Hills, Orange, and Newport Beach, as well as unincorporated Orange County. The watershed includes the San Diego Creek along with Peters Canyon channel and their tributaries.

In September 2011, Heritage Fields El Toro, LLC ("Heritage Fields") and the City of Irvine (the "City") completed a document entitled "*Amendment to [Existing] PA 51 and PA 30 Watershed Update*" approved by the Orange County Public Works Department. The watersheds analyzed in the Watershed Update included: Marshburn Channel (F16), Bee Canyon Channel (F17), Agua Chinon Channel (F18) and Borrego Canyon Channel (F20). The purpose of this document was to show that the proposed drainage for the 2011 Approved Project were in compliance with the discharge amounts established by the previously approved Master Plans.

As was true for the 2011 Approved Project, the Orange County Hydrology Manual, dated 1986, governs the procedure used to analyze surface water conveyance for the 2012 Modified Project.

5.6.2.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City of Irvine has determined that a project would normally have a significant effect on the environment if the project would:

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

HYD-5 Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

HYD-7 Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8 Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9 Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10 Be subject to inundation by seiche, tsunami, or mudflow.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates the City's determination in the Initial Study for the 2012 Modified Project (Appendix A to this DSSEIR)that the following potential impacts would be less than significant:

- Potential Impacts HYD-2, HYD-9 and HYD-10

Those impacts will not be addressed in the following analysis. For analysis of the 2012 Modified Project with respect to Potential Impacts HYD-1, HYD-3, HYD-5, and HYD-6, see Subsection 5.6.2, *Water Quality*, below.

5.6.2.3 The 2011 Approved Project

The 2011 Approved Project includes all of the mitigation measures from the 2011 Certified EIR and associated MMRP, and all of the analyses, studies and reports prepared to implement those mitigation measures.

Mitigation Measure H/WQ3 from the 2011 Certified EIR and associated MMRP requires that, prior to approval of the first tentative tract or parcel map for Existing Planning Areas 30 and 51, detailed hydrologic and hydraulic analyses be conducted in accordance with Orange County Flood Control District ("OCFCD") methodologies and standards and the Flood Control Master Plan for San Diego Creek, as well as any additional guidelines in effect at the time of project design. To comply with that mitigation measure, the following updates to the Flood Control Master Plan for San Diego Creek (collectively, "Master Plans") were amended and approved in July 2011.

- *Amendment to the San Diego Creek Master Plan- Planning Area 51/30 for Bee Canyon, Agua Chinon, Borrego, Serrano and Upper San Diego Creek, RBF Consulting, July 2011.*

- *Amendment to Planning Area 51 Marshburn Watershed Update, RBF Consulting, July 2011.*

These Master Plans were prepared in accordance with the Orange County methodologies and standards, and the Peak Flow rates at Hydrologic Nodes along the existing downstream regional facilities and San Diego Creek were compared to the values established by the Flood Control Master Plan for San Diego Creek. Orange County approved the methodology and accepted Peak Runoff rates established by the Master Plans. As part of Orange County's approval, the City completed a review of the Master Plans and found the Master Plans to be consistent with the requirements of the 2011 Certified EIR. Copies of these Master Plans are on file with the City and available for inspection at the Irvine Public Works Department, located at the City of Irvine Civic Center during normal business hours.

The Master Plans identified the Tributary Runoff Area for each drainage channel system. In addition, the Master Plans identified the Average Land Use, drainage patterns and backbone storm drain system for the 2011 Approved Project. By using the Average Land Use (created by the zoning designations for the Proposed Project Site) and drainage patterns, Peak Flow Rates were identified at specific downstream locations, referred to as Hydrologic Nodes. The Master Plans establish Peak Flow rates at these Hydrologic Nodes and compare those values to the flow rates that were used as the basis of the design for the existing regional drainage facilities. Peak Flow rates at these locations were acceptable to the OCFCD and the City and were approved as part of the Master Plans. The additional backbone storm drain facilities included in the Master Plans confirmed that development of the 2011 Approved Project would have a less than significant impact on hydrology.

5.6.2.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies ("PPPs") that apply to both the 2011 Approved Project and the 2012 Modified Project and will help to reduce and avoid potential impacts related to hydrology.

PPP 6-1 Prior to the issuance of a precise grading permit, the applicant shall submit a hydrology and hydraulic analysis of the site. The analysis shall be prepared by a professional civil engineer versed in flood control analysis and shall include the following information and analysis (Standard Condition A.6):

a. Hydrology/hydraulic analysis of 100-year surface water elevation at the project site to determine building elevation or flood proofing elevation.

b. Analysis of existing and post-development peak 100-year storm flow rates, including mitigation measures to reduce peak flows to existing conditions.

c. An analysis demonstrating that the volume of water ponded on the site and stored underground in the drainage system outside of the building envelope in the proposed condition is greater than or equal to the corresponding volume in the existing condition. The water surface used to determine the ponded volume shall be based on the water surface in the major flood control facility that the site is tributary to.

Project Design Features

There are no project design features related to hydrology that apply to the 2012 Modified Project.

The following impact analysis addresses impacts that the City determined in the Initial Study could be potentially significant impacts of the 2012 Modified Project. The applicable potential impacts are identified in brackets after the impact statement.

Methodology

There are two methods of hydrologic calculations that were used to determine the design discharges in the regional facilities at the Hydrologic Nodes for all Master Plan modeling. Generally, the "rational" method is used to calculate the design discharge for the local drainage areas when the tributary watershed area is less than one square mile (640 acres), whereas the unit hydrograph method is used when the tributary watershed area is in excess of 640 acres. However, all watersheds being studied for the 2012 Modified Project, including Hydrologic Nodes CP 3B, CP 4B, and 421, have drainage areas larger than 640 acres; therefore, the unit hydrograph method was used. Flow rate values to be compared were derived using unit hydrographs in accordance with the current Orange County Hydrology Manual, dated October, 1986. Hydrologic calculations were done using the 2004 Advanced Engineering Software (AES).

2012 Modified Project Conditions

Like the 2011 Approved Project, the 2012 Modified Project includes all of the mitigation measures from the 2011 Certified EIR and associated MMRP, and all of the analyses, studies and reports prepared to implement those mitigation measures.

The 2012 Modified Project proposes modifications to the 2011 Approved Project's land use plan, and Area weighted percent pervious ("Ap"). The effects of these proposed changes were analyzed in the following report, a copy of which is included in Appendix G to this DSSEIR:

- *Hydrology Study Heritage Fields Project 2012 - General Plan Amendment and Zone Change*, RBF Consulting, June 15, 2012.

As more fully described in Chapter 3, *Project Description*, the 2012 Modified Project proposes to change certain non-residential land uses to residential land uses primarily within Districts 5 and 6 (tributary to Agua Chinon and Borrego Channel). The areas that are south of the Railway (Districts 2 and 3) are consistent with the land use intensities in the Master Plan for the 2011 Approved Project. At this time, site planning and tentative maps are not being processed for the 2012 Modified Project. Therefore; the watershed boundaries and drainage patterns are effectively the same as for the 2011 Approved Project.

The Master Plans of Drainage define the drainage control components for the Approved Project Site, which includes the Proposed Project Site. The Master Plans' on-site channels will continue to drain the Combined PA 51 area for the 2011 Modified Project in the same manner as shown in the Master Plans for the 2011 Approved Project. The Master Plans already incorporate the backbone storm drain facilities needed to accommodate the changes in surface runoff caused by development of the 2012 Modified Project.

Watershed Boundary Update

Tributary areas to Agua Chinon Channel, Borrego Canyon Channel, Serrano Creek Channel and Upper San Diego Creek are still consistent with the Master Plan for the 2011 Approved Project. The watershed boundaries from the 2011 Approved Project were used for this analysis.

Conveyance Update

Tentative map level hydrology maps for Districts 2, 3, 5 and 6 are not being processed as part of the 2012 Modified Project and therefore an update to this study is not required at this time. The proposed drainage patterns are still consistent when compared with the Master Plan for the 2011 Approved Project. The drainage patterns from the 2011 Approved Project were, therefore, used for this analysis.

Land Use

Land uses for the 2012 Modified Project were adjusted from what was reflected in the Master Plan (see Figure 5.6-1, *2011 Approved Master Plan Land Use Plan*). For this analysis, subareas from the detailed hydrology in the Master Plan were assigned a land use based on the 2012 Modified Project. From this land use an average pervious area (Ap) was used for each of the subareas (See Figure 5.6-2, *Hydrology Land Use*). This generalized breakdown allows for a land use representation that is more suitable for a regional hydrology analysis, while still accurately reflecting the 2012 Modified Project.

Results and Summary

Since the drainage patterns and watershed boundaries of Agua Chinon Channel, Borrego Canyon Channel, Serrano Creek Channel and Upper San Diego Creek watersheds for the 2011 Approved Project are not changed by the 2012 Modified Project, the only changes to hydrology relate to the land uses within a few of the subareas within the Proposed Project Site. Additionally, the Relocated Wildlife Corridor Feature would stay within the same watershed boundary. For these reasons, only the subareas of those Watersheds that were modified were analyzed. The results of the revised Unit Hydrograph Analysis for each node have been summarized below in Table 5.6-1 for the 2012 Modified Project. The updated peak discharge amounts for all watersheds are consistent with or slightly above values established in the Master Plan for the 2011 Approved Project. The slight increases at Node 421 and CP 4B are each less than 1.0 percent of the overall peak discharge amount. Future site planning and subsequent hydrology reports will refine those discharge amounts.

Table 5.6-1
2012 Modified Project Hydrologic Node Summary

Node	Tributary Watershed	Tributary Area (Ac)	Average Ap		Peak Flow Rate, Q (cfs)		
		Master Plan	Master Plan	Revised	Master Plan	Revised	Delta
CP 3B	Agua Chinon Channel	2,969	0.770	0.608	2,194	2,184	-10
421	Agua/Borrego Confluence	7,049	0.732	0.694	6,477	6,506	+29
CP 4B	Borrego Channel	4,025	0.716	0.694	4,521	4,559	+38

Hydrology Study Heritage Fields Project 2012 - General Plan Amendment and Zone Change, RBF Consulting, June 15, 2012.

Agua Chinon Channel

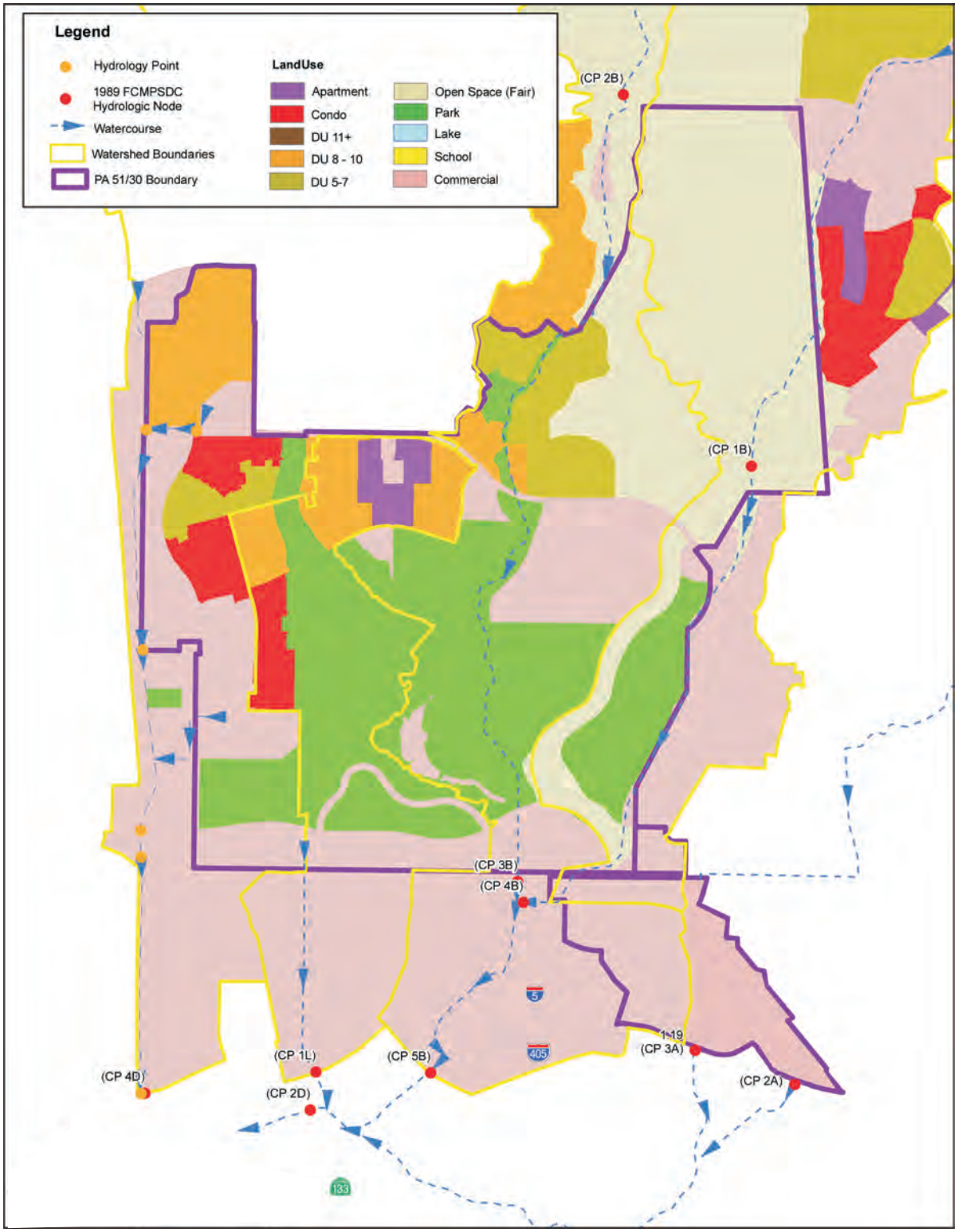
Although the change in land use proposed by the 2012 Modified Project resulted in a change to the pervious area (imperviousness), when compared to the entire watershed, the peak discharge amount is consistent with the values from the Master Plan for the 2011 Approved Project. This is due to the fact that the initial area and the majority of the watershed lie much further upstream of the proposed Combined PA 51 development area, which allows the 2012 Modified Project to drain prior to the peak event arriving.

Borrego Canyon Channel

Similar to Agua Chinon watershed, the change in land use proposed by the 2012 Modified Project tributary to Borrego Canyon Channel resulted in a change to the pervious area (imperviousness), but when compared to the entire watershed, the peak discharge amount is slightly above the values from the Master Plan for the 2011 Approved Project. The slight increases of discharge amounts at Hydrologic Nodes CP 4B (0.8 percent increase) and 421 (0.4 percent increase) are consistent with the Master Plan for the 2011 Approved Project. Future site planning and subsequent hydrology reports for this tributary area will refine those discharge amounts.

The Relocated Wildlife Corridor Feature was analyzed within this tributary area for the 2012 Modified Project. The drainage characteristics remain the same as for the 2011 Approved Project, since the Relocated Wildlife Corridor Feature would remain within the Borrego Canyon Channel watershed.

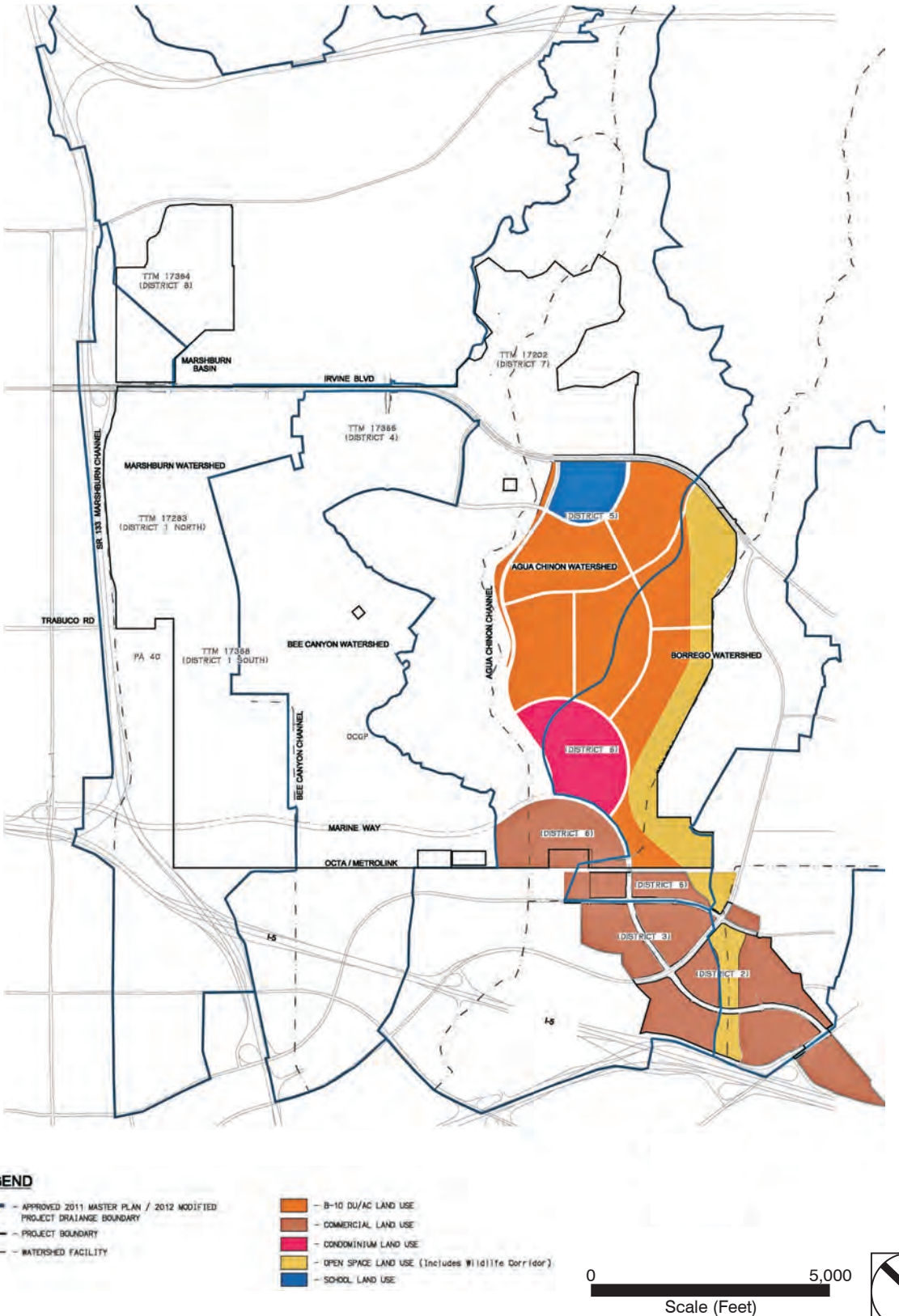
2011 Approved Master Plan Land Use Plan



Source: RBF Consulting 2011

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Proposed Hydrology Land Use



Source: RBF Consulting 2012

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Serrano Creek Channel

The 2012 Modified Project for this tributary area is consistent with the land use, watershed boundary and controlling flow paths in the Master Plan for the 2011 Approved Project. Therefore, there are no changes to discharge amounts at hydrologic nodes.

Upper San Diego Creek

Similar to the Serrano Creek Channel, the 2012 Modified Project for the Upper San Diego Creek tributary area is consistent with the land use, watershed boundary and controlling flow paths in the Master Plan for the 2011 Approved Project. Therefore, there are no changes to discharge amounts at the appropriate hydrologic nodes.

IMPACT 5.6.1-1: THE 2012 MODIFIED PROJECT WOULD NOT SUBSTANTIALLY INCREASE SURFACE WATER FLOWS INTO DRAINAGE SYSTEMS AS COMPARED TO THE 2011 APPROVED PROJECT. [IMPACTS HYD-4 AND HYD-5]

Impact Analysis: As discussed above, during operations, the 2012 Modified Project will not substantially increase surface water flows into drainage systems as compared to the 2011 Approved Project. Therefore, like the 2011 Approved Project, the 2012 Modified Project would result in a less than significant impact.

IMPACT 5.6.1-2: THE 2012 MODIFIED PROJECT WOULD NOT LOCATE ADDITIONAL DEVELOPMENT AREAS WITHIN A 100-YEAR FLOOD HAZARD AREA. [IMPACTS HYD-7 AND HYD-8]

Impact Analysis: Current City development standards and the Zoning Code prohibit the construction of any structure within a 100-year Flood Hazard Area. Per the Zoning Code and Mitigation Measure H/WQ-4, which is incorporated into both the 2011 Approved Project and the 2012 Modified Project, a Letter of Map Revision ("LOMR") must be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the flood control improvements required to contain or redirect the 100 year flood hazard. The LOMR process will be completed upon the completion of Record Drawings for the flood control facility. As a result, like the 2011 Approved Project, the 2012 Modified Project will result in a less than significant impact.

Mitigation Program and Net Impact

The 2012 Modified Project would result in minor changes to the 2011 Approved Project's drainage patterns and peak flows with minor alterations in impervious surfaces, but in general, the drainage areas, discharge points, and peak flow discharges will be consistent with the 2011 Approved Project. As was true for the 2011 Approved Project, any drainage improvements constructed as part of the 2012 Modified Project would be subject to the design criteria and capacities required by the City and County of Orange ~~County~~. No additional mitigation measures are introduced in this DSSEIR as hydrology impacts would be less than significant with the mitigation measures identified in the 2011 Certified EIR and associated MMRP.

5.6.2.5 Cumulative Impacts

The geographic area for addressing cumulative hydrology impacts is the drainage area for the Proposed Project Site. Like the 2011 Approved Project, the 2012 Modified Project includes PPPs that assure there will be no off-site drainage impacts.

The area surrounding the Proposed Project Site is either developed, approved for development or planned for development. However, all related new development and redevelopment projects in Irvine and surrounding cities will be subject to the City's and the County of Orange's hydrology-related requirements, as are the 2011 Approved Project and the 2012 Modified Project. Therefore, all such projects would have to submit a hydrology report that would identify Peak Flow rates and drainage improvements that will be used to control runoff. Additionally, cumulative flows would be evaluated and addressed in terms of required Flood Control Master Plans for each cumulative project, which are specifically intended and designed to define the flood control system necessary to accommodate runoff from future area-wide development. As such, like the 2011 Approved Project, the 2012 Modified Project's cumulative impacts related to hydrology would be less than significant.

5.6.2.6 Applicable Mitigation Measures from the 2011 Certified EIR

The 2011 Certified EIR and associated MMRP identified two mitigation measures to reduce the effects on hydrology to a less than significant level. Both of these mitigation measures are incorporated into both the 2011 Approved Project and the 2012 Modified Project.

H/WQ3 Prior to approval of the first tentative tract or parcel map in the project area, detailed hydrologic and hydraulic analysis shall be conducted. Studies and analysis shall be prepared in accordance with OCFCD methodologies and standards and the Flood Control Master Plan for San Diego Creek, as well as any additional guidelines in effect at the time of project design. Recommendations contained in the hydrology studies and/or hydraulic analysis to address drainage/flooding issues related to proposed development shall be implemented. Compliance with this measure shall be verified by the Community Development Department.

H/WQ4 Prior to issuance of a building permit for any unit within the 100-year floodplain, developers with property located in the newly delineated 100-year floodplain shall be required to construct such improvements as necessary to remove the property from the 100-year floodplain. Additionally, the developer shall prepare a Letter of Map Revision (LOMR) request to have the FIRMs revised to remove the development areas from the 100-year floodplain upon completion of the approved flood control facilities. The LOMR request shall be filed upon completion of design of the flood control improvements to contain or redirect the 100-year flood flows away from the property.

After the improvements are constructed, Record Drawings and a maintenance agreement with, or letter from, a public agency shall be submitted to FEMA to complete the LOMR process.

5.6.2.7 Level of Significance Before Additional Mitigation

Upon implementation of regulatory requirements, the standard conditions of approval, and the 2011 Approved Project's mitigation measures, which are incorporated into the 2012 Modified Project, Impacts 5.6.1-1 and 5.6.1-2 would be less than significant.

5.6.2.8 Additional Mitigation for the 2012 Modified Project

No additional mitigation measures are required, as the 2012 Modified Project would result in less than significant impacts on hydrology without additional mitigation.

5.6.2.9 Level of Significance After Additional Mitigation

All of the 2012 Modified Project's impacts on hydrology would be less than significant upon implementation of regulatory requirements, the standard conditions of approval, and the mitigation measures already in place under the 2011 Approved Project.

5.6.3 Water Quality

5.6.3.1 Environmental Setting

Regulatory Setting

Clean Water Act

The federal Water Pollution Control Act (also known as the Clean Water Act ["CWA"], 33 U.S.C. 1251 et seq.) is the principal federal statute that governs water quality. The CWA establishes the basic structure for the regulation of discharges of pollutants into the waters of the United States and gives the U.S. Environmental Protection Agency ("EPA") the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to end all polluted discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters. Under the CWA, water quality standards for contaminants in surface waters are set, and the CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and storm water discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address non-point sources of pollution. Section 402 of the CWA requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant (except dredge or fill material) into waters of the U.S.

Section 303(d) of the CWA requires that states identify waters that do not or that are not expected to meet water quality standards (beneficial uses, water quality objectives, and the anti-degradation policy) with the implementation of technology-based controls, even after point sources of pollution have installed the minimum required levels of pollution control technology.

Once a water body has been placed on the Section 303(d) list of impaired waters, states are required to develop a Total Maximum Daily Load ("TMDL") to address each pollutant causing impairment. A TMDL defines how much of a pollutant a water body can tolerate and still meet water quality standards. Each TMDL must account for all sources of the pollutant, including: discharges from wastewater treatment facilities; runoff from homes, forested lands, agriculture, and streets or highways; contaminated soils/sediments, legacy contaminants such as DDT and PCBs on-site disposal systems (septic systems) and deposits from the air. Federal regulations require that the TMDL, at a minimum, account for

contributions from point sources (permitted discharges) and contributions from nonpoint sources, including natural background. In addition to accounting for past and current activities, TMDLs may consider projected growth that could increase pollutant levels. TMDLs allocate allowable pollutant loads for each source, and identify management measures that, when implemented, will assure that water quality standards are attained.

National Pollutant Discharge Elimination System

Runoff water quality is regulated by the federal National Pollution Discharge Elimination System ("NPDES") program established by the Clean Water Act of 1972. The NPDES program's objective is to control and reduce pollutants to water bodies from non-point discharges. The program is administered by Regional Water Quality Control Boards ("RWQCBs") throughout the State. The RWQCB issues NPDES point source permits for discharges from major industries and non-point source permits for discharges for municipalities and other non-agricultural dischargers.

Under the NPDES program, facilities that discharge pollutants from any point source into waters of the U.S. are required to obtain an NPDES permit. The term "pollutant" broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources are generally defined as discharges from publicly owned treatment works ("POTWs"), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, the majority of agricultural facilities are defined as non-point sources and are exempt from NPDES regulation. Pollutant contributors come from direct and indirect sources. Direct sources discharge wastewater directly to receiving waters, whereas indirect sources discharge wastewater to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows ("CSOs"), and the Municipal Storm Water Program. Non-municipal sources include industrial and commercial facilities.

Specific NPDES program areas applicable to these industrial/commercial sources are: Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types: individual and general. Also, the USEPA has recently focused on integrating the NPDES program further into watershed planning and permitting.

The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure for minimizing and reducing pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) is the EPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system ("MS4") to develop, implement, and enforce a program (e.g., Best Management Practices ['BMPs"], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the city's storm drain system from new development and redevelopment projects that result in land disturbances of greater than

or equal to one acre. The City of Irvine Community Development Department is the local enforcing agency of the MS4 NPDES permit relevant to the Proposed Project Site.

The provisions of the MS4 Permit require the installation of post-construction BMPs for new development as part of the federal NDPES program and have set standards for their implementation. These standards have been updated most recently in Order No. R8-2009-0030 NPDES No. CAS618030 as amended by Order No. R8-2010-0062 from the State of California, California Regional Water Quality Control Board, Santa Ana Region. The provisions of this order were implemented in July 2011.

The intent of these regulations is to rigorously regulate the quality and quantity of post-construction stormwater runoff from any new impervious surface over 10,000 square feet so that receiving waters downstream are not adversely impacted. To comply with these requirements, new developments are required to install water quality stormwater runoff BMPs that filter or treat rainfall runoff generated from storm events up to approximately the 85th percentile rainfall event (or approximately the 1-inch storm event) before discharging into a receiving waters such as the San Diego Creek. Additional hydrograph modification BMPs are also required so that post-project runoff does not exceed pre-project rates or durations if such an increase could contribute to erosion in receiving waters downstream from the Proposed Project Site.

The Orange County Stormwater Program issued a Drainage Area Management Plan ("DAMP") in July 2003, pursuant to NPDES regulations. The 2003 DAMP requires a project's engineer to prepare a Water Quality Management Plan that specifies how the project will use BMPs to meet the aforementioned waste discharge requirements.

Although the 2012 Modified Project would not discharge directly into an impaired water body, runoff from the Proposed Project Site is tributary to Reach 2 of the San Diego Creek, which is listed on the current 2010 Section 303(d) List as impaired for metals and has established TMDL requirements for metals, nutrients, siltation and unknown toxicity (Tables 5.6-2 and 5.6-3). Reach 1 of San Diego Creek is also 303(d) listed as impaired for fecal coliform, selenium and Toxaphene, and has established TMDL requirements for metals, nutrients, pesticides and siltation (Tables 5.6-2 and 5.6-3).

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (California Water Code section 13000 et seq.) is the basic water quality control law for California. Under this Act, the State Water Resources Control Board ("SWRCB") has ultimate control over State water rights and water quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The State is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs, carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The basin plans must include an implementation plan that describes what methods and practices will be used to meet the water quality standards established in the basin plan. TMDLs, with their associated implementation plans, are adopted into the basin plans through the basin planning process.

Santa Ana River Basin Plan

The City of Irvine is located in the Santa Ana River Basin, Region 8, in the Upper Santa Ana Watershed. The Water Quality Control Plan for the Santa Ana River Basin ("Basin Plan") includes the San Diego Creek watershed as well as Newport Bay, which are located downstream of the Proposed Project Site. According to the Basin Plan, beneficial uses for the San Diego Creek Drainage include water recreation, warm freshwater habitat, wildlife habitat and intermittent groundwater recharge.

Several pollutants of concern have been identified in the Basin Plan for San Diego Creek watershed and Newport Bay. Total TMDLs have been established for several of these pollutants including fecal coliform, metals, sediment, diazinon, organochlorine compounds and nutrients.

Table 5.6-2 lists the Proposed Project Site's receiving water bodies (EPA 303d and Santa Ana RWQCB) and those bodies' impairments as of 2010, while Table 5.6-3 presents the status of the TMDL for the Site's receiving waters as of 2012.

Storm Water Pollution Prevention Plans

Pursuant to the CWA, on September 2, 2009, the SWRCB issued a statewide general NPDES Permit (Order No. 2009-0009 DWQ) for storm water discharges from construction sites (NPDES No. CAS000002) that became fully effective on July 1, 2010 ("Construction General Permit"). Under that Construction General Permit, discharges of storm water from construction sites with a disturbed area of one or more acres, or if part of a larger development, are required to either obtain individual NPDES permits for construction storm water discharges or be covered by the Construction General Permit. Coverage by the Construction General Permit is accomplished by completing and filing a Notice of Intent ("NOI") with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan ("SWPPP").

Each applicant under the Construction General Permit must ensure that a SWPPP is prepared and a Waste Discharge Identification ("WDID") Number is issued prior to grading, and that the SWPPP is implemented during construction. Under Order No. 2009-0009 DWQ, the SWPPP must be developed by a Qualified SWPPP Developer ("QSD") and implemented by a Qualified SWPPP Practitioner ("QSP") for each site covered by the Construction General Permit.

Table 5.6-2
Impaired Proposed Project Site Receiving Water Bodies and TMDLs
(EPA 303d)

Watershed	Pollutant of Concern	303(d)/TMDL	Phase
Serrano Creek	Ammonia	2010 303(d) Listed	2021
	Indicator Bacteria	2010 303(d) Listed	2021
	pH	2010 303(d) Listed	2021
San Diego Creek, Reach 1	Fecal Coliform	2010 303(d) Listed	Expected 2019
	Selenium	2010 303(d) Listed	Delayed as of 2012*
	Toxaphene	2010 303(d) Listed	Part of Orange County Watershed (OC) TMDL
San Diego Creek, Reach 2	Metals	2010 303(d) Listed	Delayed as of 2012*
	Indicator Bacteria	2011 303(d) Listed**	Expected 2021
Lower Newport Bay	Chlordane	2010 303(d) Listed	Part of OC TMDL
	Copper	2010 303(d) Listed	Delayed as of 2012*
	DDT	2010 303(d) Listed	Part of OC TMDL
	PCBs	2010 303(d) Listed	Part of OC TMDL
	Sediment Toxicity	2010 303(d) Listed	Expected 2019
Upper Newport Bay	Chlordane	2010 303(d) Listed	Part of OC TMDL
	Copper	2010 303(d) Listed	Delayed as of 2011*
	DDT	2010 303(d) Listed	Part of OC TMDL
	PCBs	2010 303(d) Listed	Part of OC TMDL
	Sediment Toxicity	2010 303(d) Listed	Expected 2019
	Metals	2010 303(d) Listed	Expected 2019
Newport Bay	Fecal Coliform	River Basin (RB) TMDL	In Effect 2000
San Diego Creek/Newport Bay			
	Sediment	RB TMDL	In Effect 1999
	Diazinon/Chlorpyrifos	RB TMDL	In Effect 2004
	Organochlorine Compounds (OC)	RB TMDL	Pending
	Nutrient	RB TMDL	In Effect 1999

Source: http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2010_epa.shtml
* - Discussion with John Peng, Orange County Stormwater Program, April 24, 2012.
** - Added by USEPA in 2011 after reviewing California's list.

Table 5.6-3
TMDL Status of Proposed Project Site Receiving Water Bodies
(303d and RWQCB, Santa Ana)

Watershed	*Pollutant of Concern*	*TMDL Status*
Newport Bay	Fecal Coliform	Santa Ana RWQCB Resolution Order 99-10 amended the Santa Ana Basin Plan to incorporate a TMDL for Fecal Coliform in Newport Bay. The counties and cities within the watershed are named as stakeholders on this TMDL. In response to Letter 13267 from the Santa Ana RWQCB, the Newport Watershed Permittees, IRWD and the Irvine Company are currently supporting studies and monitoring the Bay.
San Diego Creek/ Newport Bay	Metals	In 2002, in response to a 1996 lawsuit, EPA issued the Toxics TMDL for San Diego Creek/Newport Bay. This TMDL covers 14 different constituents, including several currently used and banned pesticides, copper and other metals and PCBs. The Santa Ana RWQCB is preparing the corresponding state TMDLs but has decided to issue five separate constituent and geographically specific TMDLs. When adopted, these State TMDLs will supersede the EPA TMDL. Santa Ana RWQCB is still in data collection stage.
	Sediment	The Santa Ana RWQCB issued Resolution Order 98-101 to amend the Santa Ana Basin Plan to incorporate a TMDL for sediment in Newport Bay and San Diego Creek. The counties and cities within the watershed are named as stakeholders on this TMDL. The objectives of the TMDL are to reduce the annual average sediment load in the San Diego Creek watershed from a total of 250,000 tons per year to 125,000 tons per year, thereby reducing the sediment load to Newport Bay to 62,500 tons per year within 10 years (a 50% reduction) and to lower the frequency of dredging.
	Diazinon/ Chlorpyrifos	The Santa Ana RWQCB adopted TMDLs on 4/4/2003. The Waste Load Allocation (WLA) is 72 ng/L acute Diazinon and 45 ng/L chronic Diazinon. WLA is 18 ng/L acute Chlorpyrifos and 12.6 ng/L chronic Chlorpyrifos. County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach and the agricultural operators in Newport Bay watershed are named stakeholders.
	Organochlorine Compounds	A technical TMDL for Toxic Pollutants, San Diego Creek and Newport Bay, was promulgated by EPA Region 9 in June 2002. The Constituents addressed in the TMDL included the organophosphate (OP) pesticides, selenium, metals and organochlorine (OC) compounds. The Santa Ana RWQCB approved the organochlorine compounds TMDL on 9/7/2008.
	Nutrient	Santa Ana RWQCB Resolution 98-9 as amended by 98-100 amended the Santa Ana Basin Plan to incorporate a TMDL for Nutrients for Newport Bay/San Diego Creek. The TMDL establishes targets for reducing the annual loading of nitrogen and phosphorus to Newport Bay by 50% and meeting the numeric and narrative water quality objectives by 2012. To achieve these targets, the TMDL establishes a number of interim targets requiring a 30% and 50% reduction in nutrients in summer flows by 2002 and 2007, respectively, and a 50% in non-storm winter flows by 2012. As of 2011, the Santa Ana RWQCB is considering revising the TMDL and establishing new water quality objectives for nitrogen in tributaries to Newport Bay*.

Source: http://www.ocwatersheds.com/TMDL.aspx
* Discussion with Jain Peng, Orange County Stormwater Program, April 24, 2012.

A SWPPP must include a risk level determination based upon the project's sediment risk and receiving water risk. Based on the combined risks, a Risk Level is assigned to each project, Risk Level 1, 2, or 3. Risk Level 1 is the least stringent, while Risk Level 3 is the most stringent. Based on the project's Risk

Level, BMPs are designed to reduce potential impacts to surface water quality through the construction and life of the project. Order No. 2009-0009 DWQ includes the following additional elements:

- Annual Reports are to be submitted each year the permit is active and all standards and BMPs outlined in the project SWPPP shall be followed and enhanced as necessary to maintain the project in compliance with the then current Construction General Permit.

- Minimum BMPs include good site management for construction materials, waste management, vehicle storage and maintenance, landscape materials, and potential pollutant sources; non-stormwater management; erosion controls; sediment controls; and run-on and runoff controls. Site-specific project risk-level determination for sediment and receiving water (such as if stormwater discharges directly or indirectly into a Section 303d listed impaired water body) yields additional BMP measures.

- Primary sediment control BMPs (interceptors/barriers) include perimeter protection, natural channel barriers, and storm drain inlet protection to prevent temporary construction-related erosion from entering into permanent drainage systems. Primary erosion control BMPs include preserving existing vegetation, tracking, and soil stabilization within 14 days after completion. In addition, dust control measures and stockpile protection are required year-round.

- A Sampling and Analysis Plan instituted for sediment related and non-visible pollutants in stormwater discharges attributed to a breach or malfunction of a BMP or if contaminants stored or used on the construction site are not properly contained and result in a spill. In addition, each site SWPPP receives a site-specific Risk Level determination based on sediment and receiving water risks (such as if stormwater discharges directly or indirectly into a Section 303d listed impaired water body) that yield specific Stormwater discharges sampling and testing requirements for pH and turbidity.

- Year-round Construction Site Monitoring and SWPPP inspection, maintenance and repair based upon site-specific risk level determination requirements. As a minimum, construction site monitoring shall be performed once every 7 days, prior to and after storm events, and at least once each 24-hour period during extended storm events (normal work days, daylight hours). Quarterly non-stormwater monitoring is also required.

The primary objective of the SWPPP is to identify, construct, implement and maintain proper BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction. The SWPPP also outlines the monitoring and sampling program required to verify compliance with the requirements of effluent discharge. Depending upon the project Risk Level, Numeric Action Levels ("NALs") and Numeric Effluent Limitations ("NELs") are set by the Construction General Permit for stormwater discharges from construction sites. Compliance with the Construction General Permit is used as one method of evaluating a project's construction-related impacts on surface water quality.

5.6.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City of Irvine has determined that a project would normally have a significant effect on the environment if the project would:

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

HYD-5 Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

HYD-6 Otherwise substantially degrade water quality.

Note that Potential Impacts HYD-4, HYD-5, HYD 7, and HYD-8, are addressed above in Subsection 5.6.1, *Hydrology*. For analysis of the 2012 Modified Project under Potential Impact HYD-2, see Subsection 5.12.1, *Water Supply*, in Section 5.12, *Utilities and Service Systems*, of this DSSEIR.

5.6.3.3 The 2011 Approved Project

The 2011 Approved Project will convert former agricultural and military uses on the former MCAS to primarily residential and commercial uses. As stated in Section 5.6.1, above, the 2011 Approved Project includes all of the mitigation measures from the 2011 Certified EIR and associated MMRP, and all of the analyses, studies and reports prepared to implement those mitigation measures. The 2011 Approved Project includes the following Conceptual Project Water Quality Management Plan (WQMP) prepared in conformance with the Orange County DAMP standards.

- *Conceptual Project Water Quality Management Plan (WQMP), Updating the Integrated Master Plan of Drainage, Water Quality and Habitat Mitigation, Orange County Great Park Neighborhoods*, RBF Consulting, April 20, 2009, update and clarification August 11, 2011.

With the proposed removal of many features of the former MCAS, the 2011 Approved Project was calculated to achieve a total net reduction in Approved Project Site watershed imperviousness of roughly 15 percent, resulting in a regional watershed percent imperviousness of roughly 41 percent.

Mitigation Measure H/WQ1 requires that a SWPPP be prepared prior to the approval of grading permits for any portion of the Approved Project Site in order to reduce sedimentation and erosion. The SWPPP must include the adoption of erosion and sediment control practices such as desilting basins and construction site chemical control management measures.

Mitigation Measure H/WQ2 requires demonstration that all stormwater runoff and dewatering discharges from the Approved Project Site be managed to the maximum extent practicable ("MEP") or treated as appropriate to comply with water quality requirements identified in the Basin Plan, including the TMDL Implementation Plan adopted for the San Diego Creek/Upper Newport Bay Watershed.

The WQMP implements standards from the DAMP based on the Approved Project Site's imperviousness, land use type, and downstream receiving water characteristics by incorporating project design features

("PDFs") and BMPs which reduce discharges of pollutants of concern from the 2011 Approved Project to the maximum extent practicable.

The pollutants of concern that were identified for the 2011 Approved Project by the above-referenced WQMP are listed in Table 5.6-4.

Table 5.6-4
2011 Approved Project Pollutants of Concern

Land Use	Pollutant Concerns:
Agriculture and Parks	Pesticides, Nutrients, Bacteria
Educational/Exposition Center/Research and Development, Commercial and Industrial	Bacteria, Nutrients, Pesticides, Sediments, Trash, Oxygen Demanding Substances, Oil and Grease, Metals
Residential	Bacteria, Nutrients, Pesticides, Sediments, Trash, Oxygen Demanding Substances, Oil and Grease, Metals
Roadway	Metals, Organic Compounds, Sediment, Trash, Oil and Grease, Bacteria, Nutrients, Pesticides, Oxygen Demanding Substances

Source: RBF Consulting, 2009; Update and Clarification, August 2011

Through the WQMP, the 2011 Approved Project incorporates source control, site design and treatment control measures as generally described below:

Site Design BMPs

Site design BMPs decrease the amount of potential runoff where practical to mimic pre-development hydrology to the maximum extent practicable. The 2011 Approved Project incorporates the following site design BMPs as part of its WQMP:

1. Conservation of Natural Areas to reduce imperviousness.
2. Disconnection of directly connected impervious areas allowing greater natural infiltration and time of concentration to downstream watercourses.

Source Control BMPs

Source controls are BMPs that are intended to reduce the amount of pollutants mobilized during rain storm or other events. They include both non-structural and structural BMPs. Table 5.6-5 lists the source control BMPs incorporated into the 2011 Approved Project:

Treatment Control BMPs

Treatment control BMPs capture stormwater before it leaves the site and cleanse the water through various processes prior to discharge, or infiltrate the water where practical to mimic pre-development hydrology to the maximum extent practicable.

The 2011 Approved Project incorporates several treatment control BMPs through its approved WQMP. The main treatment control BMP identified by the WQMP <u>for the overall project (Great Park Neighborhoods and Great Park)</u> is the incorporation of ~~13~~ water quality ~~(bioretention)~~ facilities designed

according to the Orange County DAMP and Irvine Ranch Water District's NTS Master Plan Design Guidelines (2005 and 2012 Addenda), in addition to existing NTS Site 18 (Marshburn Retarding Basin).

~~Of these 13~~The 2011 Approved Project documented water quality facilities~~, five drain into Marshburn Channel, one drains into Bee Canyon Channel, four drain into Agua Chinon, two drain into Borrego Canyon Channel, and one drains into Serrano Creek.~~ as its primary BMP to treat Development Districts 1, 4, 7 and 8. The water quality sites for the aforementioned districts and the overall project (Great Park Neighborhoods and Great Park) will be designed in accordance with the current IRWD Natural Treatment System (NTS) Design Guidelines and IRWD will accept the facilities as Natural Treatment System sites. In addition, a bioretention facility has been constructed in District 8 in accordance with an agreement between the developer and IRWD. If IRWD or City wishes to substitute other facilities with bioretention, IRWD and City will work with the developer to consider and implement a mutually agreeable alternative.

These Natural Treatment System (NTS) facilities are designed to capture 80 percent of the average annual runoff from the developed areas of the Approved Project Site, and to cleanse the captured water through the settlement of particles and direct infiltration in areas where the underlying strata is permeable. In addition, these facilities are designed to capture and either eva-potranspirate or treat summer dry-weather nuisance flows in order to reduce discharges to downstream receiving waters to the maximum extent practicable (MEP) (ENGEO 2012 Reissued October 2013). A more complete list of Treatment Control BMPs incorporated into the 2011 Approved Project by the WQMP is presented in Table 5.6-6.

~~The bioretention cell~~The Natural Treatment System (NTS) facilities design met the applicable standard for MEP treatment of post-construction stormwater flows as defined by the Orange County Stormwater Program MS4 permit (Orange County MS4), since the facilities would promote on-site detention and infiltration, when feasible, of stormwater during rainfall events in a manner intended to mimic pre-development hydrologic conditions throughout the Approved Project Site, as well as at points of discharge. These combined elements will reduce geomorphic impacts associated with changes in flow, duration or volume of existing downstream watercourse hydrographs, known as watershed "hydromodification" (hydrograph modification).

Because site imperviousness is similar to or slightly reduced in the 2011 Approved Project condition as compared to the former MCAS condition, the 2011 Certified EIR considered the effects of hydrograph modification to downstream receiving waters due to implementation of the 2011 Approved Project to be negligible.

Table 5.6-5
2011 Approved Project Source Control BMPs

BMPs	Residential	Commercial	Industrial	Recreational
Structural Source Control BMPs				
Storm Drain Stenciling	X	X	X	X
Outdoor Material Storage		X	X	X
Trash/Waste Storage	X	X	X	X
Irrigation Systems and Landscape Design	X	X	X	X
Slope and Channel Protection/Energy Dissipation	X	X	X	X
Maintenance Bay and Docks		X	X	
Vehicle Wash Areas		X	X	
Outdoor Processing Areas		X	X	
Equipment Wash Areas		X	X	
Fueling Areas		X	X	
Hillside Landscaping	X	X	X	X
Wash Water Control		X	X	
Car Wash Racks	X	X	X	
Non-Structural Source Control BMPs				
Educational Materials	X	X	X	X
Activity Restriction		X	X	
Common Area Landscape Management	X	X	X	X
BMP Maintenance	X	X	X	X
Title 22 CCR Compliance		X	X	
Local Industrial Permit Compliance			X	
Spill Contingency Plan		X	X	
Underground Storage Tank Compliance		X	X	
Hazardous Materials Disclosure		X	X	
Uniform Fire Code Implementation	X	X	X	X
Common Area Litter Control	X	X	X	X
Employee Training		X	X	X
Loading Dock Housekeeping		X	X	
Common Area Catch Basin Inspection	X	X	X	X
Street Sweeping	X	X	X	X
Commercial Vehicle Washing		X		
Retail Gasoline Outlets		X		

Source: RBF Consulting, 2009; Update and Clarification, August 2011

Table 5.6-6
2011 Approved Project Treatment Control BMPs

BMPs	Residential	Commercial	Industrial	Recreational
Bioretention	X	X	X	X
Vegetated Strips	X	X	X	X
Vegetated Swales	X	X	X	X
Extended Detention Basins	X	X		X
Wet Detention Basins	X	X	X	X
Constructed Wetland	X	X	X	X
Porous Landscape Detention	X	X	X	X
Permeable Surfaces	X	X	X	X
Infiltration Basins		X	X	X
Infiltration Trench		X	X	X
Media Filters	X	X	X	X
Proprietary Control Measures	X	X	X	X

Source: RBF Consulting, 2009; Update and Clarification 2011

5.6.3.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies ("PPPs") that apply to both the 2011 Approved Project and the 2012 Modified Project and that will help to reduce and avoid potential impacts related to water quality:

PPP 6-2 Prior to the issuance of a precise grading permit, the applicant shall submit a groundwater survey of the site. The analysis shall be prepared by a geotechnical engineer versed in groundwater analysis and shall include the following information and analysis (Standard Condition A.7):

a. Potential for perched groundwater intrusion into the shallow groundwater zone upon buildout.

b. Analysis for relief of groundwater buildup and properties of soil materials on-site.

c. Impact of groundwater potential on building and structural foundations.

d. Proposed mitigation to avoid potential for groundwater intrusion within five feet of the bottom of the footings.

PPP 6-3 This project will result in soil disturbance of one or more acres of land that has not been addressed by an underlying subdivision map. Prior to the issuance of preliminary or precise grading permits, the applicant shall provide the City Engineer with evidence that a Notice of Intent (NOI) and relevant Permit Registration Documents have been filed with the State Water Resources Control Board and that a Waste Discharge Identification ("WDID") Number

is issued. Such evidence shall consist of a copy of the NOI Receipt letter with WDID retrieved from the State Water Resources Control Board Stormwater Multi-Application and Report Tracking System (SMARTS) website or the Regional Water Quality Control Board, or a letter from either agency stating that the NOI has been filed (Standard Condition A.10).

PPP 6-4 Prior to the issuance of precise grading permits, the applicant shall submit, and the Director of Community Development shall have approved, a project water quality management plan (WQMP). The WQMP shall identify the best management practices that will be used on the site to control predictable pollutant runoff (Standard Condition A.13).

As detailed below, although the 2012 Modified Project includes minor changes to the distribution of land uses on the Proposed Project Site as it relates to water quality, these changes equate to approximately the same site imperviousness as the 2011 Approved Project. (Please refer to Chapter 3, *Project Description*, for a complete description of the 2012 Modified Project.) Therefore, water quality impacts associated with the 2012 Modified Project would be substantially the same as those associated with the 2011 Approved Project, and the water quality impacts of both the 2012 Modified Project and the 2011 Approved Project would be less than significant.

Methodology

The following technical study (see Appendix H to this DSSEIR) has been prepared to analyze potential water quality impacts of the 2012 Modified Project as compared to those of the 2011 Approved Project, based on the 2012 Modified Project's land uses:

- *Project Water Quality Technical Report*, ENGEO Incorporated, June 22, 2012, Reissued October 9, 2013.

This report concludes that the 2012 Modified Project would result in approximately the same overall net impervious area as the 2011 Approved Project, and would include the same general land uses and pollutants of concern. Since the 2012 Modified Project makes only minor refinements to the 2011 Approved Project as it relates to water quality, as outlined in the Project Water Quality Technical report, the impacts of the 2012 Modified Project will be similar to those of the 2011Approved Project, and both would be less than significant.

IMPACT 5.6.2-1: THE 2012 MODIFIED PROJECT WOULD NOT SUBSTANTIALLY ALTER THE DRAINAGE PATTERN OF THE PROPOSED PROJECT SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, IN A MANNER WHICH WOULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE. [IMPACT HYD-3]

According to the Orange County Stormwater Program DAMP, the 2012 Modified Project's post-construction water quality impacts would differ from those of the 2011 Approved Project if the 2012 Modified Project's drainage patterns were different. Since the 2011 Approved Project and the 2012 Modified Project both contain the same land uses, develop generally the same land areas and generally have the same site imperviousness, the drainage patterns for the 2012 Modified Project would be the same as for the 2011 Approved Project. Therefore, the 2012 Modified Project's and the 2011 Approved Project's water quality impacts are the same and, are less than significant.

IMPACT 5.6.2-2: THE 2012 MODIFIED PROJECT WOULD NOT SIGNIFICANTLY INCREASE WATER POLLUTANT CONCENTRATIONS IN RUNOFF FROM THE PROPOSED PROJECT SITE DURING LONG-TERM OPERATION OR ALTER THE QUALITY OF STORMWATER RUNOFF, OR OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY, AS COMPARED TO THE 2011 APPROVED PROJECT. [IMPACTS HYD-1, HYD-5 AND HYD-6]

Construction Phase Water Quality Impacts

Like the 2011 Approved Project, the 2012 Modified Project incorporates mitigation measure H/WQ 1, which requires that, prior to issuance of a grading permit, the project applicant demonstrate that construction of the 2012 Modified Project will comply with the requirements of the NPDES General Construction Permit to ensure that construction activities reduce, to the maximum extent practicable, their water quality impacts. Among other requirements, a SWPPP must be prepared prior to the approval of grading permit(s) for any portion of the Proposed Project Site exceeding 1 acre in disturbed area (or part of a larger development) in order to reduce sedimentation and erosion that could impact downstream receiving waters. The 2012 Modified Project also incorporates mitigation measure H/WQ 2, which requires that, prior to the issuance of a grading permit, a construction management plan be submitted to demonstrate that all storm water runoff and dewatering discharges from the Proposed Project Site will be managed to the maximum extent practicable or treated as appropriate to comply with water quality requirements identified in the Santa Ana Basin Plan.

Although the footprint of the 2012 Modified Project's disturbed area differs slightly from the 2011 Approved Project's footprint due to land plan refinements and the inclusion of the 11 additional acres (currently included in PA 9) into proposed Combined PA 51, no significant impacts would result. Implementation of the SWPPP and compliance with the NPDES General Construction Permit and the Santa Ana Basin Plan during construction (land development, utility/streets, vertical, landscaping, and inactive) would ensure that the 2012 Modified Project's construction phase water quality impacts will be, like those of the 2011 Approved Project, less than significant.

Post-Construction Water Quality Impacts

According to the Orange County Stormwater Program DAMP, the 2012 Modified Project's post-construction water quality impacts would differ from those of the 2011 Approved Project if the 2012 Modified Project's Pollutants of Concern were different. Since the 2011 Approved Project and the 2012 Modified Project both contain generally the same types of land uses, develop generally the same land areas, and generally have the same site imperviousness, the Pollutants of Concern for the 2012 Modified Project would be the same as for the 2011 Approved Project. Therefore, the 2012 Modified Project's and the 2011 Approved Project's water quality impacts are the same, and are less than significant.

The 2012 Modified Project impacts to storm drainage systems are addressed above in Section 5.6.1 and are not analyzed further here.

5.6.3.5 Cumulative Impacts

The area surrounding the Proposed Project Site in the San Diego Creek Watershed is either already developed, approved for development or planned for development. As is true for the 2011 Approved Project, by adherence to the Orange County DAMP standards, which is required of all new development and redevelopment projects, the cumulative water quality impact of the 2012 Modified Project together with additional development in the area would be regulated in conformance with Santa Ana Basin Plan standards adopted by the Santa Ana RWQCB. These standards take a watershed scale approach to water quality issues and are periodically updated based on regional water quality studies. These studies include additional specific constituents of concern (TMDLs) and broader objectives (Beneficial Uses). Also, the Maximum Extent Practicable (MEP) standard associated with water quality mitigation is reevaluated periodically based on advances in technology associated with project design features and regulated through the Santa Ana RWQCB and the Orange County DAMP standards.

While related projects could result in erosion and sedimentation impacts during construction, such projects would also comply with Construction General Permit requirements regarding preparation and implementation of SWPPPs and implementation of BMPs for minimizing construction water quality impacts. Cumulative impacts on water quality from construction activities would be less than significant.

Therefore, through the regulatory approval process, additional development would also mitigate to a level considered to be less than significant. As such, like those of the 2011 Approved Project, the 2012 Modified Project's cumulative impacts related to water quality would be less than significant.

Mitigation Program and Net Impact

The 2012 Modified Project would have minor changes in the impervious surfaces, as compared to the 2011 Approved Project, and would only result in minor changes to the 2011 Approved Project's drainage patterns and peak flows. In general, the drainage areas, discharge points, and peak flow discharges will be consistent with the 2011 Approved Project. Because the source controls and structural practices for surface water quality management are the same, the post-construction water quality Best Management Practices (BMPs) proposed in the 2012 Modified Project are consistent with the ~~NTS~~ Water Quality Facilities and other BMPs used in the 2011 Approved Project, and both the 2012 Modified Project and 2011 Approved Project water quality BMPs are consistent with BMPs described in the approved Conceptual Project Water Quality Management Plan (RBF, August 2009 Update and Clarification August 2011). In addition, the conversion from non-residential uses to residential uses will not significantly alter the types of urban pollutants generated on-site and no changes to the water quality BMPs are necessary. As is true for the 2011 Approved Project, any drainage improvements constructed as part of the 2012 Modified Project would be subject to the Orange County DAMP standards. No additional mitigation measures are introduced in this DSSEIR as water quality impacts would be less than significant with the mitigation measures identified in the 2011 Certified EIR and associated MMRP.

Applicable Mitigation Measures from the 2011 Certified EIR

Like the 2011 Approved Project, the 2012 Modified Project will incorporate two mitigation measures to reduce its effects on water quality. Implementation of already imposed Mitigation Measures H/WQ1 and H/WQ2 (listed below) ensure that the 2012 Modified Project's impacts on water quality will be less than significant.

H/WQ1 Prior to issuance of a grading permit, the applicant shall provide evidence that the development of the project area shall comply with City of Irvine adopted Grading and Water Quality Ordinances to ensure that the potential for soil erosion is minimized on a project-by-project basis. Specifically, the NPDES discharge permitting requirements to which the City is obligated will ensure that construction activities reduce, to the maximum extent feasible, the water quality impacts of construction activities. The NPDES permit guidance states that "industrial/commercial construction operations that result in a disturbance of one acre or more of total land area…~~and residential construction sites that result in the disturbance of five acres or more…~~shall be required to develop and implement BMPs…to control erosion and siltation and contaminated runoff from the construction sites." Note: In March 2003 this provision will apply to residential construction sites that result in the disturbance of one acre or more.

The City's standard conditions of approval indicate that a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared prior to the approval of grading permits for any project site in order to reduce sedimentation and erosion. The SWPPP shall include the adoption of erosion and sediment control practices such as desilting basins and construction site chemical control management measures.

Additionally, prior to the issuance of a grading permit, project applicants must submit, and the Director of Community Development or designee must have approved, a Water Quality Management Plan (WQMP). The WQMP must identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff after the site is occupied. Ongoing operations after construction would be subject to the Countywide Municipal NPDES Stormwater Permit, for which the City is a Co-Permittee. This WQMP shall identify, at a minimum, the routine, structural, and non-structural measures specified in the Countywide NPDES DAMP Appendix which they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, lessee, etc.), and shall reference the location(s) of structural BMPs.

Also in accordance with standard City project permitting and approval procedures, Notices of Intent (NOI) for coverage of projects under the General Construction Activity Storm Water Runoff Permit will be submitted to the State Water Resources Control Board prior to issuance of grading permits in the project area. This requirement will be met to the satisfaction of the Director of Community Development of any disturbance of one acre or more of soil in the project area. Also in force during the period of construction would be the General Dewatering NPDES permit of the Santa Ana RWQCB, as well as the provisions of the Countywide Permit.

The Mitigation Measures will be implemented in accordance with local and State regulatory requirements. As future projects are planned and designed in the project area, specific BMPs and other water quality control methods will be utilized to reduce water quality degradation in the Newport Bay watershed. Future projects in the proposed project area will acknowledge and implement those additional requirements that may be imposed by RWQCB in the future. Compliance with these measures shall be verified by the Community Development Department.

H/WQ2 Prior to issuance of a grading permit, evidence (e.g., in the form of a construction management plan) shall be provided that demonstrates that all stormwater runoff and dewatering discharges from the project area shall be managed to the maximum extent practicable or treated as appropriate to comply with water quality requirements identified in the Santa Ana Regional Water quality Control Board Basin Plan, including Total Maximum Daily Load (TMDL) Implementation Plan adopted for this watershed.

5.6.3.6 Level of Significance Before Additional Mitigation

With implementation of the same regulatory requirements, mitigation measures and standard conditions of approval that are already included in the 2011 Approved Project, the 2012 Modified Project's impacts on water quality, including Impacts 5.6.2-1 and 5.6.2-2 discussed above would be less than significant.

5.6.3.7 Additional Mitigation for the 2012 Modified Project

No additional mitigation measures are required because the 2012 Modified Project's impacts on water quality would be less than significant prior to any additional mitigation.

5.6.3.8 Level of Significance After Additional Mitigation

All of the 2012 Modified Project's impacts on water quality would be less than significant upon implementation of regulatory requirements, the standard conditions of approval, and the mitigation measures already in place under the 2011 Approved Project.

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5.12 TRANSPORTATION AND TRAFFIC

This section of the DSSEIR evaluates the potential for implementation of the 2012 Modified Project to result in transportation and traffic impacts as compared to the 2011 Approved Project. The analysis in this section is based in part on the following technical report:

- *Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis*, Urban Crossroads, ~~June 21~~October 9, 2012 (the "Traffic Study").

A complete copy of this study is included in the Technical Appendices to this DSSEIR as Appendix I. Consistent with the Traffic Study Scope of Work (the "Scope of Work", attached as Appendix 1.1 to the Traffic Study), the Traffic Study performed analyses for years 2015, 2030, and Post-2030 for the 2012 Modified Project for Project Option 1 and Option 2 Scenarios as follows:

- Option 1 - Includes the conversion of Institutional (Education) and Office land uses to Multi-Use (Non-Residential) or Medical and Science (R&D) in District 1 North.

- Option 2 – In addition to the Option 1 conversions in District 1 North, this option includes a relocation of Multi-Use and Retail from District 1 North to District 1 South, as well as changes in Districts 1 North to accommodate approved residential units displaced from a portion of District 1 South.

For consistency with the terminology used in this DSSEIR, this section will use the term "2012 Modified Project", which has the same meaning in this section and in the Traffic Study as in the Scenarios "2012 Modified Project; Option 1" or as "2012 Modified Project Option 2".

Traffic Summary

The following introduction has been added to Section 5.12, Transportation and Traffic as a summary of the traffic study methodology, the Irvine Transportation Analysis Model (ITAM), the North Irvine Transportation Mitigation (NITM) Program, and the findings and conclusions of the Traffic Impact Analysis to provide a context in which to address specific issues relating to traffic.

Purpose and Methodology

The purpose of the Traffic Impact Analysis is to evaluate the potential traffic and circulation impacts associated with the 2012 Modified Project on the surrounding roadway system and to recommend improvements to mitigate potential impacts that are considered significant based on the City's thresholds. The Traffic Impact Analysis was prepared by Urban Crossroads in accordance with a Scope of Work that was approved by the City on April 5, 2012.

Consistent with the City's procedures for traffic analysis, the Traffic Impact Analysis identifies potential impacts of the 2012 Modified Project as compared to the existing traffic conditions and the future traffic conditions in years 2015 (interim year), 2030 and Post-2030 (buildout). The study area for the Traffic Impact Analysis is the NITM study area, a broad geographic area including locations in the Cities of Irvine, Lake Forest, Laguna Hills, Laguna Woods, Laguna Beach, Mission Viejo, Aliso Viejo, Tustin, and unincorporated County areas. The NITM study area was based on the area of traffic impact associated with development in Planning Areas 1, 2, 5, 6, 8, 9, 30, 40 and 51 (the Northern Sphere and the Orange

County Great Park developments). Participants in NITM include the City, Heritage Fields, and The Irvine Company. In order to define the traffic characteristics of the 2012 Modified Project, the Traffic Impact Analysis displays ITAM trip generation rates which are actually used in the travel demand modeling process to develop traffic volume projections.

The existing traffic conditions were based on the current circulation system, specifically the 2011 and 2012 intersection AM and PM peak hour counts and 24-hour roadway segment traffic counts. Future traffic conditions were prepared using ITAM, and also incorporate City of Lake Forest Traffic Analysis Model (LFTAM) volume datasets where available. The three future cumulative growth settings (2015, 2030 and Post-2030) are based on the existing circulation system plus improvements that are planned to be in place in each future time frame and the corresponding land use and development growth that is projected in each future time frame.

The City uses a Level of Service ("LOS") to determine whether a significant impact would occur at intersections, arterial segments, freeway interchanges, or freeway segments. LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS “A”, representing completely free-flow conditions, to LOS “F”, representing breakdown in flow resulting in stop-and-go conditions. Typically, a significant impact would occur if an intersection or segment is operating at LOS "E" or LOS "F", depending on location of the intersection consistent with General Plan policy.

The Traffic Impact Analysis also includes two project variations. The 2012 Modified Project includes the conversion of institutional and office uses to Multi-Use and Medical Science in District 1 North. In the Traffic Impact Analysis, and in the DSSEIR, this is referred to as "Option 1." Option 2 includes the conversion of Institutional and Office land uses to Multi-Use or Medical and Science land uses in District 1 North, and in addition (i) the relocation of Multi-Use and Retail from District 1 South to District 1 North; (ii) relocation of residential units from District 1 South to District 1 North; and (iii) changes in Districts 1 North to accommodate the approved residential units displaced from a portion of District 1 South.

The 2012 Modified Project proposes to amend the City of Irvine General Plan Figure B-1 (Master Plan of Arterial Highways ("MPAH")) to delete the on-site extension of Rockfield Boulevard from its existing western terminus to Marine Way. While the extension of Rockfield Boulevard has appeared on the County MPAH since 2000, the connection it provided between Bake Parkway and Alton Parkway was actually duplicated by Marine Way in 2008, when Marine Way was added to the County MPAH. The Traffic Impact Analysis evaluates the deletion of the on-site extension of Rockfield Boulevard as part of the 2012 Modified Project.

In addition to analyzing the scenarios listed above, the Traffic Impact Analysis addresses special issues related to the 2012 Modified Project, including the potential effect of nearby pending development projects and buildout of the on-site extension of Rockfield Boulevard from its existing western terminus to Marine Way.

Irvine Transportation Analysis Model (ITAM)

As discussed in Section 4.5 of the DSSEIR, the City has developed a socioeconomic-based traffic model, ITAM, for purposes of forecasting future traffic volumes associated with cumulative growth projections within Irvine and regionally. Outside of the City of Irvine, ITAM derives area wide traffic patterns from

its parent model, the Orange County Transportation Analysis Model (OCTAM). The OCTAM socioeconomic data (SED) is maintained as background dataset, which is used to produce trip tables that drive ITAM. OCTAM SED is based upon Orange County Projections of population and housing generated by the Center for Demographic Research, CSUF. Within the City of Irvine, city staff members maintain a comprehensive database of land uses and population and housing statistics for each ITAM zone. These datasets are unique to Interim Year (2015), 2030 and Post 2030 conditions. The City's growth projections for Post-2030 (representing full General Plan buildout) are based upon the City's General Plan.

ITAM is a transportation modeling tool that is used to estimate future traffic conditions, identify future roadway needs, and assess possible circulation system impacts of the City's new development and roadway improvements. It is designed to meet regional model consistency requirements in accordance with the Sub-Area Modeling Guidelines Manual developed by the Orange County Transportation Authority (OCTA). Regional growth outside of Irvine has accounted for traffic, air quality, greenhouse gas, and noise impacts through use of ITAM. The growth projections in ITAM are used, in part, as the basis for the cumulative impact analyses in the DSSEIR.

North Irvine Transportation Mitigation (NITM) Program

The NITM Program was established in 2003 to identify mitigation and provide a funding mechanism for transportation improvements and mitigation needed, including in and around the traffic analysis study area for the Proposed Project. The NITM Program was established for the purpose of providing funding for the coordinated and phased installation of required traffic and transportation improvements required under CEQA documents previously certified or adopted by the City in connection with land use entitlements for Planning Areas 1/2, 5, 6, 8, 9, 30, 40 and 51 (the Northern Sphere and the Orange County Great Park developments). The NITM Program includes a list of NITM Improvements, each of which is scheduled to be constructed during a certain timeframe (2015, 2030 or post 2030). The NITM Program regularly monitors and phases the implementation of these improvements as it relates to associated development activity. The circulation system improvements that are programmed to be fully paid for by the NITM Program are assumed in ITAM to be constructed, as appropriate, in the years 2015, 2030 and post-2030. Additional information related to the NITM program is found in Topical Response 3.

Summary of Traffic Analysis Findings

Below is a summary of the findings of the Traffic Impact Analysis regarding impacts of the 2012 Modified Project on traffic in and around the Proposed Project Site. For scenarios that were identified as resulting in traffic at intersections, arterial segments, freeway interchanges, or freeway segments that exceed adopted impact thresholds, the Traffic Impact Analysis identifies mitigation measures that would mitigate the adverse impacts. Many of those mitigation measures involve NITM or LFTAM improvements.

Existing Conditions with Project

This scenario hypothetically assumes that all development associated with the 2012 Modified Project would occur instantaneously. The Traffic Impact Analysis determined that the 2012 Modified Project would cause traffic to exceed adopted thresholds at one intersection (Culver Drive and University Drive) and one interchange ramp (SR-133 Northbound loop on-ramp at Barranca).

At the intersection of Culver Drive & University Drive, improvements are already identified in the NITM program and the University of California, Irvine Long Range Development Plan. Traffic projections for all future scenarios with these improvements result in acceptable levels of service.

The SR-133 northbound loop on-ramp at Barranca Parkway is not impacted under future conditions (cumulative 2015, 2030 and Post-2030 scenarios), and the proposed improvement for this ramp (conversion of the HOV preferential lane to a second metered mixed-flow lane) is not a NITM Program improvement. In the event that the pending projects evaluated in the traffic impact analysis are approved, this location is identified as a project impact in the 2012 Modified Project Option 2 scenario and will participate in the implementation of the mitigation improvement on a fair share basis.

Interim Year 2015 with Project – Option 1

The Traffic Impact Analysis determined that the 2012 Modified Project would not cause traffic to exceed adopted thresholds.

If the pending projects are approved, no changes to the impacts would occur.

Interim Year 2015 with Project – Option 2

In this scenario, the 2012 Modified Project would not cause traffic to exceed thresholds on arterial roadway segments, arterial intersections, freeway segments, or freeway ramps.

If the pending projects are approved, the 2012 Modified Project would result in an impact at the SR-133 Northbound loop on-ramp at Barranca Parkway. This project impact would be mitigated on a fair-share basis.

Long Range 2030 with Project – Option 1

In this scenario, the cumulative traffic projections indicate that seven roadway intersections, one freeway interchange, and three freeway segments would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Browning Avenue & Irvine Boulevard
- Culver Drive & Barranca Parkway
- Jeffrey Road & Barranca Parkway
- Sand Canyon Avenue & I-5 Northbound Ramp/ Marine Way (assuming LOS "E" is not acceptable)
- Sand Canyon Avenue & Oak Canyon
- Bake Parkway & Rockfield Boulevard
- Los Alisos Boulevard & Rockfield Boulevard

Freeway Interchange

- I-5 Northbound Off-Ramp to Jamboree Road

Freeway Segments

- I-5 Northbound, North of Culver Drive
- I-5 Northbound, North of Jeffrey Road
- I-405 Northbound, North of Jeffrey Road

The Traffic Impact Analysis determined that identified mitigation , including participation in NITM, would mitigate impacts at: 1) the intersections of Culver Drive/Barranca Parkway, Jeffrey Road/ Barranca Parkway, Sand Canyon Avenue/I-5 Northbound Ramp/ Marine Way, Sand Canyon Avenue/Oak Canyon Road, Bake Parkway/Rockfield Boulevard, Browning Avenue/Irvine Boulevard and Los Alisos Boulevard/Rockfield Boulevard; 2) the I-5 Northbound Off-Ramp to Jamboree Road; and 3) the I-5 Northbound (north of Culver Drive); I-5 Northbound (north of Jeffrey Road) and I-405 Northbound (north of Jeffrey Road) freeway segments.

Long Range 2030 with Project – Option 1 with Pending Projects

In this scenario, the cumulative traffic projections indicate that seven roadway intersections, one freeway interchange, and one freeway segment would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Browning Avenue & Irvine Boulevard
- Culver Drive & Barranca Parkway
- Jeffrey Road & Barranca Parkway
- Jeffrey Road & Alton Parkway
- Sand Canyon Avenue & I-5 Northbound Ramp/ Marine Way (assuming LOS "E" is not acceptable)
- Bake Parkway & Rockfield Boulevard
- El Toro Road & Portola Parkway

Freeway Interchange

- I-5 Northbound Off-Ramp to Jamboree Road

Freeway Segments

- I-5 Northbound, North of Culver Drive

The Traffic Impact Analysis determined that identified mitigation, including participation in NITM, would mitigate impacts at: 1) the intersections of Browning Avenue/Irvine Boulevard, Culver Drive/Barranca Parkway, Jeffrey Road/ Barranca Parkway, Jeffrey Road & Alton Parkway, Sand Canyon Avenue/I-5 Northbound Ramp/ Marine Way, Bake Parkway/Rockfield Boulevard, and El Toro Road & Portola Parkway; 2) the I-5 Northbound Off-Ramp to Jamboree Road; and 3) the I-5 Northbound (north of Culver Drive) freeway segment.

Long Range 2030 with Project – Option 2

In this scenario, cumulative traffic projections indicate that eight intersections and three freeway segments would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Browning Avenue & Irvine Boulevard
- Culver Drive & Barranca Parkway
- Jeffrey Road & Barranca Parkway
- Sand Canyon Avenue & I-5 Northbound Ramp/ Marine Way (assuming LOS "E" is not acceptable)
- Sand Canyon Avenue & Oak Canyon
- Bake Parkway & Rockfield Boulevard
- Newport Avenue & Irvine Boulevard
- Culver Drive & Bryan Avenue

Freeway Segments

- I-5 Northbound, North of Culver Drive
- I-5 Northbound, North of Jeffrey Road
- I-405 Northbound, North of Jeffrey Road

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at: 1) the intersections of Culver Drive/Barranca Parkway, Jeffrey Road/ Barranca Parkway, Sand Canyon Avenue/I-5 Northbound Ramp/ Marine Way, Sand Canyon Avenue/Oak Canyon Road, Newport Avenue/Irvine Boulevard, Bake Parkway/Rockfield Boulevard, Browning Avenue/ Irvine Boulevard and Culver Drive/Bryan Avenue; and 2) the I-5 Northbound (north of Culver Drive), I-5 Northbound (north of Jeffrey Road) and I-405 Northbound (north of Jeffrey Road) freeway segments.

Long Range 2030 with Project – Option 2 with Pending Projects

In this scenario, cumulative traffic projections indicate that six intersections, one freeway ramp, and one freeway segment would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Browning Avenue & Irvine Boulevard
- Culver Drive & Barranca Parkway
- Jeffrey Road & Barranca Parkway
- Sand Canyon Avenue & I-5 Northbound Ramp/ Marine Way (assuming LOS "E" is not acceptable)
- Bake Parkway & Rockfield Boulevard
- El Toro Road & Portola Parkway

Freeway Interchange

- I-5 Northbound Off-Ramp to Jamboree Road

Freeway Segments

- I-5 Northbound, North of Culver Drive

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at: 1) the intersections of Browning Avenue & Irvine Boulevard, Culver Drive/Barranca Parkway, Jeffrey Road/ Barranca Parkway, Sand Canyon Avenue/I-5 Northbound Ramp/ Marine Way, Bake Parkway/Rockfield Boulevard, and El Toro Road / Portola Parkway; 2) the I-5 Northbound Off-Ramp to Jamboree Road; and 3) the I-5 Northbound (north of Culver Drive) freeway segment.

General Plan Buildout (Post-2030) – Option 1

In this scenario, three intersections and one freeway segment would exceed adopted impact thresholds with the 2012 Modified Project.

Intersections

- Jeffrey Road & Roosevelt
- Jeffrey Road & Alton Parkway
- Laguna Canyon Road & Old Laguna Canyon Road

Freeway Segments

- I-405 Northbound, North of Jeffrey Road

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at 1) the intersections of Jeffrey Road/Roosevelt, Jeffrey Road/Alton Parkway, and Laguna Canyon Road/ Old Laguna Canyon Road; and 2) the I-405 Northbound, north of Jeffrey Road freeway segment.

General Plan Buildout (Post-2030) – Option 1, with Pending Projects

In this scenario, two intersections and one freeway ramp would exceed adopted impact thresholds with the 2012 Modified Project.

Intersections

- Jeffrey Road & Roosevelt
- Jeffrey Road & Alton Parkway

Freeway Interchange

- I-5 Northbound Off-Ramp to Jamboree Road

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at 1) the intersections of Jeffrey Road/Roosevelt, and Jeffrey Road/Alton Parkway, and 2) the I-5 Northbound Off-Ramp to Jamboree Road.

General Plan Buildout (Post-2030) – Option 2

In this scenario, as with Option 1, three intersections and one freeway segment would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Jeffrey Road & Roosevelt
- Jeffrey Road & Alton Parkway
- Laguna Canyon Road & Old Laguna Canyon Road

Freeway Segments

- I-405 Northbound, North of Jeffrey Road

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at: the intersections of Jeffrey Road/Roosevelt, Jeffrey Road/Alton Parkway, and Laguna Canyon Road/ Old Laguna Canyon Road; and 2) the I-405 Northbound, north of Jeffrey Road freeway segment.

General Plan Buildout (Post-2030) – Option 2 with Pending Projects

In this scenario, as with Option 1, two intersections and one freeway ramp would exceed adopted impact thresholds with the 2012 Modified Project as follows:

Intersections

- Jeffrey Road & Roosevelt
- Jeffrey Road & Alton Parkway

Freeway Interchange

- I-5 Northbound Off-Ramp to Jamboree Road

The Traffic Impact Analysis determined that mitigation, including participation in NITM, would mitigate impacts at: the intersections of Jeffrey Road/Roosevelt, and Jeffrey Road/Alton Parkway; and 2) the I-5 Northbound Off-Ramp to Jamboree Road.

Level of Significance after Mitigation

Traffic impacts of the 2012 Modified Project have been identified by analyzing the study area circulation system based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. In some cases, new project impacts that were not mitigated by improvements identified in the NITM Program have been identified for project development scenarios. Recommended mitigation measures for each impacted location have also been identified, some of which are in the City's jurisdiction and some of which are not. The City acknowledges the obligation to contribute to the fair-share cost of improvements to those facilities outside the City of Irvine's jurisdiction; however, the adjacent cities have full control over implementing the identified improvements under their jurisdiction. If improvements are not completed for reasons beyond the City's control, the 2012 Modified Project's traffic impacts would remain significant and unavoidable.

5.12.2 Environmental Setting

5.12.2.1 Analysis Scope and Methodology

Pursuant to the approved Scope of Work, the Traffic Study identifies potential impacts of the 2012 Modified Project based on existing traffic conditions and years 2015, 2030 and Post-2030 future traffic conditions. The baseline for this DSSEIR is the 2011 Approved Project, not the existing conditions at the time that the environmental documentation is prepared. Although the existing physical condition would generally be the baseline for analysis, in this case, the impacts of the 2011 Approved Project have been fully analyzed in the context of expected growth and all feasible mitigation has been imposed. The 2011 Approved Project is vested pursuant to a development agreement and would remain vested whether or not the 2012 Modified Project is approved. Therefore, the DSSEIR analysis aims to determine any traffic impacts expected from the proposed changes to the 2011 Approved Project being made by the 2012 Modified Project, and additional mitigation, if required. Nonetheless, for informational purposes only, this report includes the Existing-Plus 2012 Modified Project Option 1, and Existing-Plus 2012 Modified Project Option 2 conditions analyses. These scenarios assume hypothetically that the 2012 Modified Project (Option 1, or Option 2) would be constructed immediately. "Existing" refers to the physical conditions in the study area at the time the Traffic Study was prepared. The Existing-Plus 2012 Modified Project (Option 1, and Option 2) analyses are a theoretical construct; a project of this scale will obviously not occur instantaneously, and this scenario does not take into account the cumulative growth that would realistically occur during the course of development of the 2012 Modified Project, which would include various on-site and off-site infrastructure improvements in conjunction with progressive growth in the North Irvine Transportation Mitigation (NITM) Program area. The following traffic conditions are analyzed:

Existing Conditions

- 2011 and 2012 peak hour intersection counts and 24-hour segment counts

Existing Plus Project Conditions

- with the 2012 Modified Project Option 1
- with the 2012 Modified Project Option 2

The existing plus project scenario for both Options 1 and 2 assumes the 2012 Modified Project, including the DB Units. The Existing-Plus-2012 Modified Project analysis is below in Section 5.12.4.2.

Interim Year 2015 Analysis

- Interim Year 2015 without Project (Existing Uses plus change to Multi-Use and Medical and Science (R&D) in Districts 1 North and 1 South)
- Interim Year 2015 with Project Option 1
- Interim Year 2015 with Project Option 2

The year 2015 analysis is below in Section 5.12.4.3.

Interim Year Long Term 2030 Analysis

- Long Term Year 2030 without Project (2011 Approved Project - Baseline)
- Long Term Year 2030 with the 2012 Modified Project Option 1

- Long Term Year 2030 with the 2012 Modified Project Option 2

The year 2030 analysis is below in Section 5.12.4.5.

General Plan Buildout (Post-2030) Analysis

- General Plan Buildout (Post 2030) without Project (2011 Approved Project - Baseline)
- General Plan Buildout (Post 2030) with the 2012 Modified Project Option 1
- General Plan Buildout (Post 2030) with the 2012 Modified Project Option 2

The Post-2030 analysis is below in Section 5.12.4.6

Pursuant to the Scope of Work, the analysis in the Traffic Study identifies potential impacts of the 2012 Modified Project based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. Existing traffic conditions are based on 2011 and 2012 intersection peak hour and 24-hour roadway segment traffic counts. Future traffic conditions have been prepared using the Irvine Transportation Analysis Model, Version 8.4-10 (ITAM 8.4-10) and the City of Lake Forest Traffic Analysis Model (LFTAM). For the Traffic Study, traffic volume changes generated by ITAM 8.4-10 are overlayed on LFTAM datasets within the City of Lake Forest, and the ITAM 8.4-10 is directly utilized for all other locations in the traffic analysis study area.

The three future cumulative growth settings (2015, 2030 and Post-2030) are based on the existing circulation system plus improvements that are planned to be in place in each future time frame and the land use and development growth that is projected in each future time frame.

The NITM Program was established in 2003 to identify mitigation and provide a funding mechanism for transportation improvements and mitigation needed in North Irvine, including in and around the traffic analysis study area for the Proposed Project. The circulation system improvements that are programmed to be fully funded by the NITM Program have been included in the year 2015, year 2030 and Post-2030 scenarios analyzed in this study. Circulation system improvements that are only partially funded by the NITM Program are assumed to be in place only in the Post-2030 scenario when system-wide improvements are assumed.

For locations where partially funded NITM improvements have been identified and where the 2012 Modified Project exceeds adopted impact thresholds based on this analysis, the partially funded NITM improvements are considered first to determine whether they mitigate the 2012 Modified Project impact.

Development projects that have been approved in and around the study area have been included in the future traffic conditions analyzed here along with any circulation system improvements related to those approved projects. Recently approved projects assumed in this analysis include the tract map for PA 40, the IBC Vision Plan, PA 9, and the Western Sector Park Development Plan Project.

5.12.2.2 Study Area

Figure 5.12-1 illustrates the study area that was defined in the approved Scope of Work and that was applied in the Traffic Study analysis that is summarized in this section. The broad study area includes analysis locations in the Cities of Lake Forest, Laguna Hills, Laguna Woods, Mission Viejo, Aliso Viejo, and Tustin. The analysis results verify that the study area encompasses potential traffic impacts associated with the 2012 Modified Project.

5.12.2.3 Performance Criteria

Traffic operations of roadway facilities are described with the term "Level of Service" (“LOS”). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS “A”, representing completely free-flow conditions, to LOS “F”, representing breakdown in flow resulting in stop-and-go conditions. LOS “E” represents operations at or near capacity, an unstable level, where vehicles are operating with the minimum spacing for maintaining uniform flow. Table 5.12-1 summarizes the volume/capacity (V/C) ranges for LOS “A” through “F” for arterial roads and freeway/tollway ramps. The V/C ranges listed for arterial roads are designated in the Orange County Transportation Authority (“OCTA”) Congestion Management Program (“CMP”) as well as the General Plan for Irvine and for the other jurisdictions within the traffic analysis study area. The V/C ranges listed for freeway/tollway segments are based on the V/C and LOS relationships specified in the HCM for basic freeway sections.

Table 5.12-1
Volume/Capacity Ratio Level of Service (LOS) Ranges

LOS	Volume/Capacity (V/C) Ratio Range	
	Arterial Roads	Freeway Segments
A	0.00 - 0.60	0.00 - 0.30
B	0.61 - 0.70	0.31 - 0.50
C	0.71 - 0.80	0.51 - 0.71
D	0.81 - 0.90	0.72 - 0.89
E	0.91 - 1.00	0.90 - 1.00
F	Above 1.00	Above 1.00

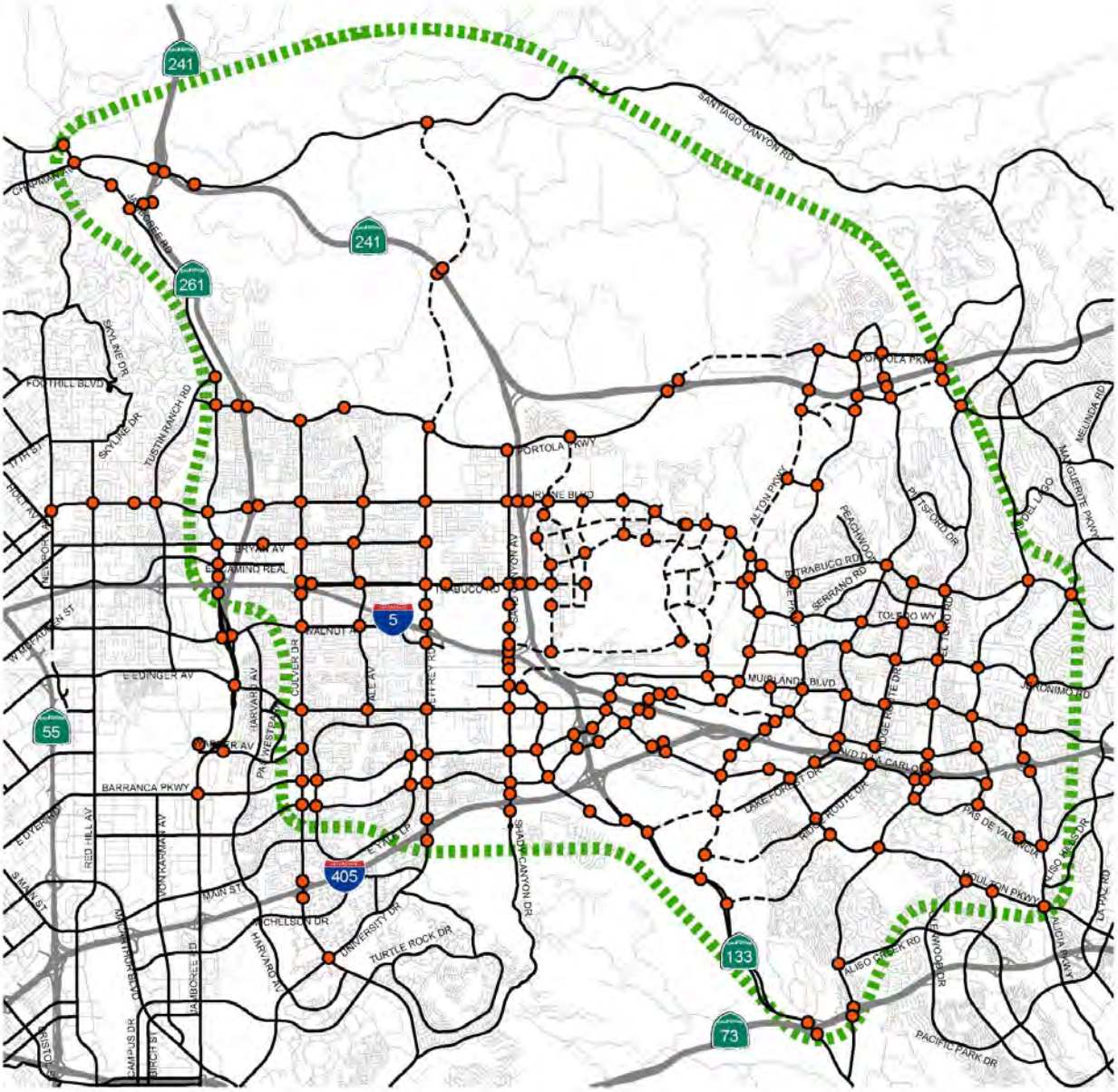
Sources: Urban Crossroads, 2012.

The overall performance criteria applied in this analysis are summarized in Table 5.12-1. The criteria include components for arterial roadways, intersections, freeway/tollway mainline segments and freeway/tollway ramps, and are based on LOS calculation methodologies and performance standards that have been adopted by the governing jurisdictions for the study area and by the OCTA as part of the CMP. When analyzing individual locations on the study area circulation system, the criteria of the jurisdiction in which a given facility is located has been applied in this study. As required in the City's NITM Ordinance, the performance standards applied in this study are consistent with those approved in the 2003 NITM Program Nexus Study (the "Nexus Study").

The arterial roadway criteria involve the use of average daily traffic ("ADT") V/C ratios. The criteria are supplemented by the City's Link Capacity Analysis guidelines which require that arterial deficiencies identified based on ADT V/C ratios be further examined using peak hour data.

The intersection capacity utilization ("ICU") analysis is based on peak hour volumes and uses individual turn movements and the corresponding intersection lane geometry to estimate level of service. Use of the ICU methodology is consistent with the City's traffic analysis guidelines, and, pursuant to standard practice, the ICU methodology assumes that intersections are signalized.

Traffic Analysis Study Area



Source: Urban Crossroads 2013

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To address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway/tollway ramp intersections at Sand Canyon Avenue/I-5, Irvine Boulevard/SR-133 interchanges and Trabuco Road/SR-133 interchanges are analyzed in this study using the HCM methodology in addition to the ICU methodology. In the HCM intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. The vehicle delay ranges that correspond to LOS "A" through "F" as specified in the HCM area are summarized in Table 5.12-2.

Table 5.12-2
HCM Intersection Delay Level of Service (LOS) Ranges

LOS	Average Vehicle Delay Signalized	Average Vehicle Delay Unsignalized
A	0 - 10.00 seconds	0 - 10.00 seconds
B	10.01 - 20.00 seconds	10.01 - 15.00 seconds
C	20.01 - 35.00 seconds	15.01 - 25.00 seconds
D	35.01 - 55.00 seconds	25.01 - 35.00 seconds
E	55.01 - 80.00 seconds	35.01 - 50.00 seconds
F	Above 80.00 seconds	Above 50.00 seconds

Source: Urban Crossroads, 2012.

Freeway ramps are analyzed based on AM and PM peak hour ramp volumes taken from intersection volumes at each location in the study area where freeway ramps intersect the arterial system. LOS "E" (V/C not to exceed 1.00) is the performance standard specified in the CMP for arterials that are part of the CMP roadway network, and is applied in this analysis as the performance standard for CMP arterials outside the City, Irvine PA 33 (Spectrum 1/Irvine Center) and PA 36 (Irvine Business Complex/IBC) intersections, the Bake Parkway/I-5 ramp intersections, Alton Parkway at Irvine Boulevard, Bake Parkway at Irvine Boulevard, the Lake Forest Drive/I-5 southbound ramp – Avenida de la Carlota, and Lake Forest/Irvine Center Drive. LOS "D" (V/C not to exceed 0.90) is the performance standard for the remainder of the City and for the remainder of the arterial roadway system in the study area.

For impact analysis purposes, the significance criteria are based on the LOS and either the increase in ICU or V/C due to the 2012 Modified Project. The 2012 Modified Project proposes to amend the City of Irvine General Plan Figure B-1 (Master Plan of Arterial Highways) to delete the on-site extension of Rockfield Boulevard from its existing western terminus to Marine Way, once the OCTA has approved this proposed amendment to the countywide Master Plan of Arterial Highways. The 2012 Modified Project would also amend the General Plan, Objective B-1, Policy (c) regarding LOS "E" consideration as follows:

In conjunction with traffic studies for development proposed in Combined PA 51, a LOS "E" standard would be considered acceptable for intersections impacted in Planning Areas 13, 31, 32, 34, 35, 39 and a portion of Combined PA 51 south of Marine Way. LOS "E" would be acceptable (see previous Figure 3-6,*Proposed Locations Where LOS E May be Acceptable*) subject to the following:

1. Preparation, submittal, processing and approval of a traffic study.

2. Level of Service "E" will only be considered acceptable for an intersection that does not contain a residential quadrant unless the residential development has a net density of 30 dwelling units per acre or greater. Level of Service "E" will not be acceptable along Sand Canyon, except at the Sand Canyon/I-5 Interchange Ramps/Intersections.

3. Participation/funding to an upgraded traffic signal system, as defined in the Traffic Management Systems Operations Study (TMSOS), and/or an Advance Traffic Management System (ATMS), which may be in place at the time of processing of an individual traffic study. The City, in conjunction with specific traffic studies, shall determine the level of participation/funding required by using criteria and a process developed concurrently with the processing of each traffic study.

Because freeway ramps and mainline segments are part of the CMP highway network, the Traffic Study uses LOS "E" as being acceptable. The freeway mainline and freeway ramp criteria are based on peak hour V/C ratios. The freeway mainline and ramp capacities are based on information contained in the Caltrans Highway Design Manual and the Caltrans Ramp Meter Design Manual. This methodology and criteria have been used for other traffic impact analyses throughout Orange County. The Modified Project is considered to significantly contribute to new/worsened freeway mainline deficiencies in cases where the peak hour V/C increases by more than 0.03 from the 2011 Approved Project to 2012 Modified Project conditions.

For the roadway link V/C and intersection ICU analyses, a significant impact occurs if the roadway link or intersection is deficient without the Project (LOS "F" for CMP intersections or LOS "E" or "F" for all roadway links and all other intersections), and the Project contribution to the "with project" ICU or V/C is .02 or more except at CMP locations outside the City and at County of Orange locations. A significant impact also occurs if the intersection is not deficient without the 2012 Modified Project (LOS "E" for CMP intersections or LOS "D" or better for all other intersections), and the 2012 Modified Project contribution to the "with project" ICU or V/C causes it to become deficient (LOS "F" for CMP intersections or LOS "E" or "F" for all other intersections).

5.12.2.4 Relationship to Other Studies

Several recent studies that have been carried out for locations in the vicinity of the Proposed Project Site are of relevance to the traffic analysis presented here. The projects and studies briefly summarized below have all been approved and have been incorporated into the traffic models that are applied in the Traffic Study that is summarized in this section.

Great Park Neighborhoods General Plan Amendment/Zone Change and VTTM 17008 Amendment Traffic Study (May 2011), and VTTMs 17364, 17283 Amended, 17366, 17368, and 17202 Traffic Study (May 2011) – These studies evaluated project modifications that included the following actions: locating 1,100 low- density residential units, previously located on a programmatic basis within Districts 5 and 7, in the locations depicted on the Vesting Tentative Tract Maps ("VTTMs"), changes to the General Plan land use designation and the associated zoning of these units from Low Density (0-5 du/ac) to Multi-Use (0-40 du/ac); locating 1,500 residential units in a portion of the Transit Oriented District ("TOD") located within PA 51, to the locations depicted on the VTTMs; locating the 1,269 density bonus units, which had not previously been located on a programmatic basis, in the locations depicted on the VTTMs; locating the remaining 1,025 residential units on the VTTMs; transferring non-residential development intensities between certain zones; and realigning Ridge Valley and "O" Street at Irvine Boulevard. These changes were achieved and implemented through the approved General Plan Amendment, Zone Change, five VTTMs, VTTM and VTPM amendments and Master Plans pursuant to Zoning Ordinance Section 2-17-2, and 9-51-6, Parks Plans, Master Landscape and Trails Plan and Master Wall and Fence Plan amendment approved by the City in September 2011.

Great Park Western Sector Development Plan Traffic Study (August 2011) - In 2011, the Great Park Corporation sought approval of a Minor Modification to the approved Orange County Great Park Master Plan and a Park Design, which were associated with implementation of the Western Sector Park Development Plan. The Western Sector Park Development Plan consists of minor modifications that would result in: the transfer of non-residential square footage from the northeastern area to the southwestern area of the park; remove the Air Museum and Concessions/Retail, and replace them with the Artist in Residency Facility, the proposed Community Ice Facility, and the proposed Nature Education Garden; and replacement of the existing Air Museum Hangar with Hangar 244. The Western Sector Park Development Plan was approved by the GPC Board and the Irvine City Council on October 20, 2011. Note that the Minor Modification was approved by the Director of Community Development on October 19, 2011 and the Park Design was approved on October 20, 2011.

North Irvine Transportation Mitigation (NITM) Program Nexus Study (April 2003) and North Irvine Transportation Mitigation (NITM) Program Five-Year Review (June 2010) - The nexus study summarized in the first report (completed in April 2003) was carried out as part of the NITM Program, which established a funding mechanism for the transportation improvement mitigation measures identified in the Environmental Impact Reports (EIRs) for three future development projects in north Irvine; 1) Spectrum 8/PA40, 2) Irvine Northern Sphere Area (PAs 5B, 6, 8A and 9), and 3) the Orange County Great Park. The second report (completed in June 2010) summarized the results of a comprehensive NITM Program review. The circulation system improvements that are programmed to be fully funded by the NITM Program have been included in the year 2015, year 2030 and Post-2030 scenarios analyzed in this study.

City of Irvine Planning Area 40 Vesting Tentative Tract Map 17277 Traffic Study (Reference 7) and City of Irvine Planning Area 40/Planning Area 12 (Traveland Site) GPA/ZC and Planning Areas 1 and 9 Density Transfer Traffic Study (June 2008) – These reports, which was completed in October 2010 and June 2008, respectively, presented the findings of traffic studies carried out to determine the impacts of a GPA/ZC for City PAs 40 and 12 as well as a subsequent VTTM for a major portion of PA40. The land use and circulation assumptions for PA40 VTTM 17277 and the PA40/PA12 GPA/ZC project are applied in this study as part of the background conditions.

Bake Parkway – Marine Way Circulation System Amendment Traffic Study (June 2008)– This report, which was completed in June 2008, identified potential traffic circulation needs associated with the relocation of the Bake Parkway at Marine Way intersection from its original General Plan location to a location further northeast on Bake Parkway. The Bake Parkway/Marine Way configuration associated with this approved Circulation System Amendment and the related roadway improvements identified in the traffic study are assumed in the background conditions applied in this study.

5.12.2.5 Existing Roadway Network

Figure 5.12-2 identifies the existing circulation system in the study area together with existing midblock lanes on arterial roadways and the number of existing travel lanes on freeway/tollway mainline segments. Current average daily traffic ("ADT") counts for midblock arterial roadway segments and AM and PM peak hour turn movement counts at intersection locations in the study area were conducted in 2011 and 2012. ADT midblock and peak hour intersection traffic count worksheets for each location that was

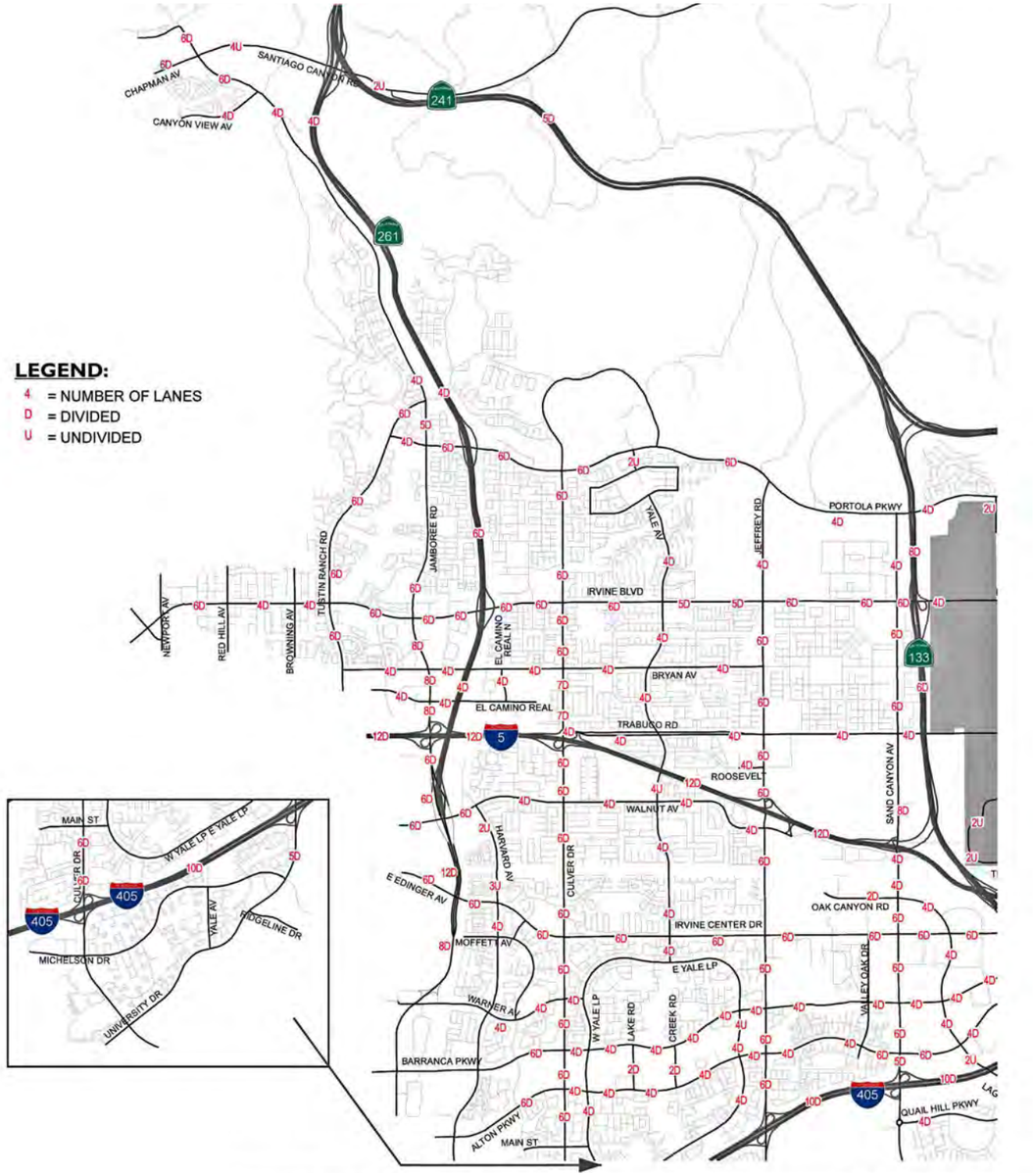
analyzed on the arterial roadway system in the study area are included in Appendices 4.1 and 4.2 to the Traffic Study (Appendix I). Existing freeway mainline count data is consistent with the City PA 6 Traffic Study (AFA, 2011) and PA 33 (Lots 105 and 107/108) Traffic Study (Stantac, 2012), which were taken from the Caltrans Performance Management System (PeMS). Data was extracted for a typical five-day workweek and counts were then averaged.

5.12.2.6 Existing Average Daily Traffic Volumes and Levels of Service

Current ADT volumes and corresponding V/C ratios on the arterial roadway system and the freeway/tollway system in the study area are illustrated in Figures 5.12-3 and 5.12-4. Based on the ADT V/C LOS performance criteria above, the arterials in the study area generally appear to operate at acceptable levels of service with the exception of the following locations:

- Alicia Pkwy (south of Jeronimo Rd)
- Alicia Pkwy (north of Muirlands Bl)
- Alicia Pkwy (I-5 NB Ramps to Muirlands Bl)
- Alicia Pkwy (south of I-5 SB Ramps)
- Avenida Carlota (Paseo de Valencia to El Toro Rd)
- Bake Pkwy (north of Commercentre Dr)
- Bake Pkwy (north of Irvine Bl)
- Bake Pkwy (north of Muirlands Bl)
- Bake Pkwy (south of Rockfield Bl)
- ~~Culver Dr (Main St to San Leandro)~~
- ~~Culver Dr (San Leandro to I-405 NB Ramps)~~
- Culver Dr (Walnut to I-5)
- El Toro (I-5 SB Ramps to Avenida Carlota)
- El Toro (north of SR-73)
- El Toro (south of SR-73)
- Jamboree Rd (north of Michelle Dr)
- Jamboree Rd (south of Michelle Dr)
- Laguna Canyon Rd/SR-133 (north of SR-73 NB Ramps)
- Lake Forest (south of Rockfield)
- ~~Portola Pkwy (south of SR-241 SB Ramps)~~
- ~~Sand Canyon (north of Oak Canyon)~~
- Santa Margarita (south of SR-241)
- University Dr (I-405 SB Ramps to Michelson Dr)

Existing Circulation System



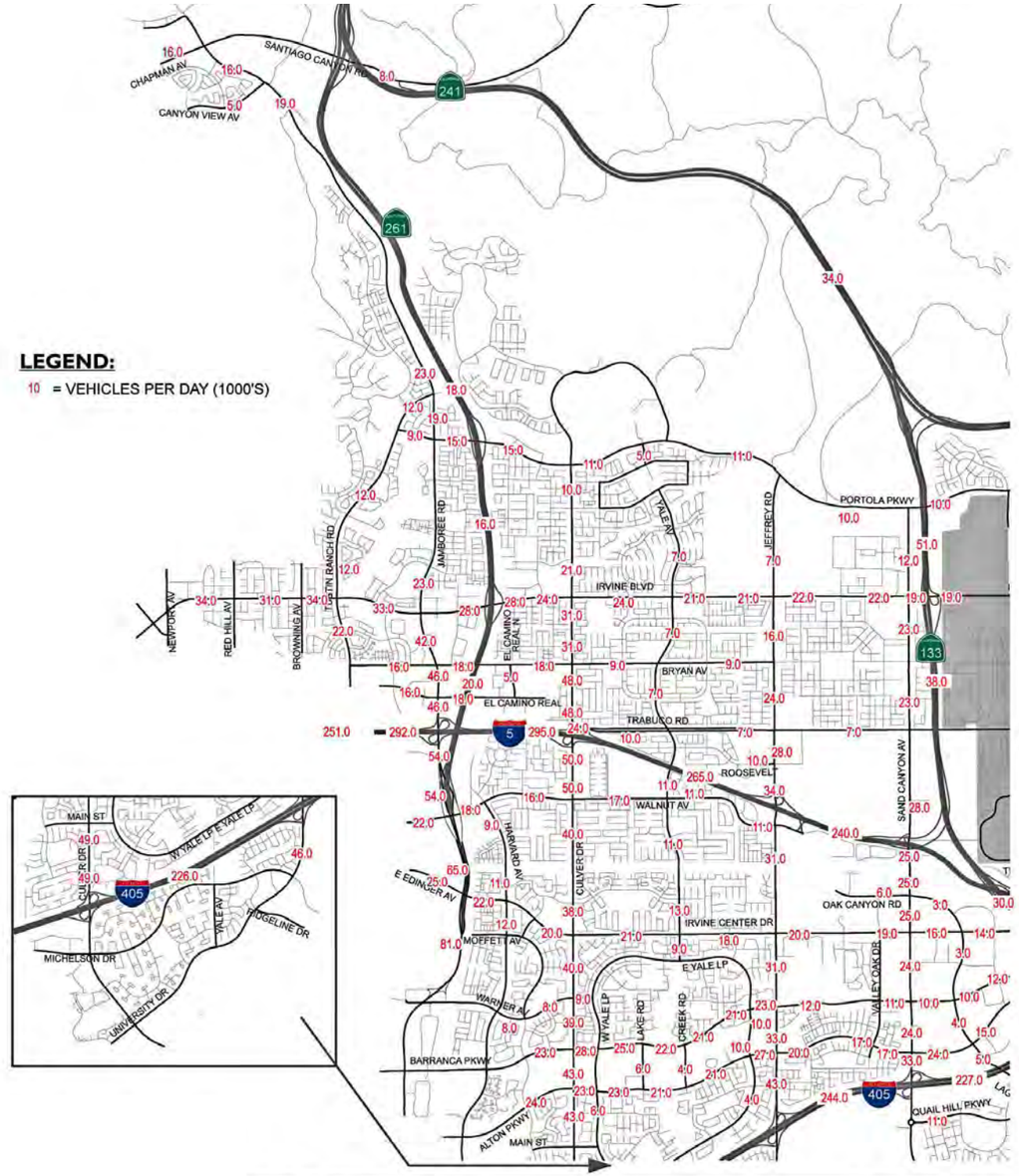
West Study Area

East Study Area

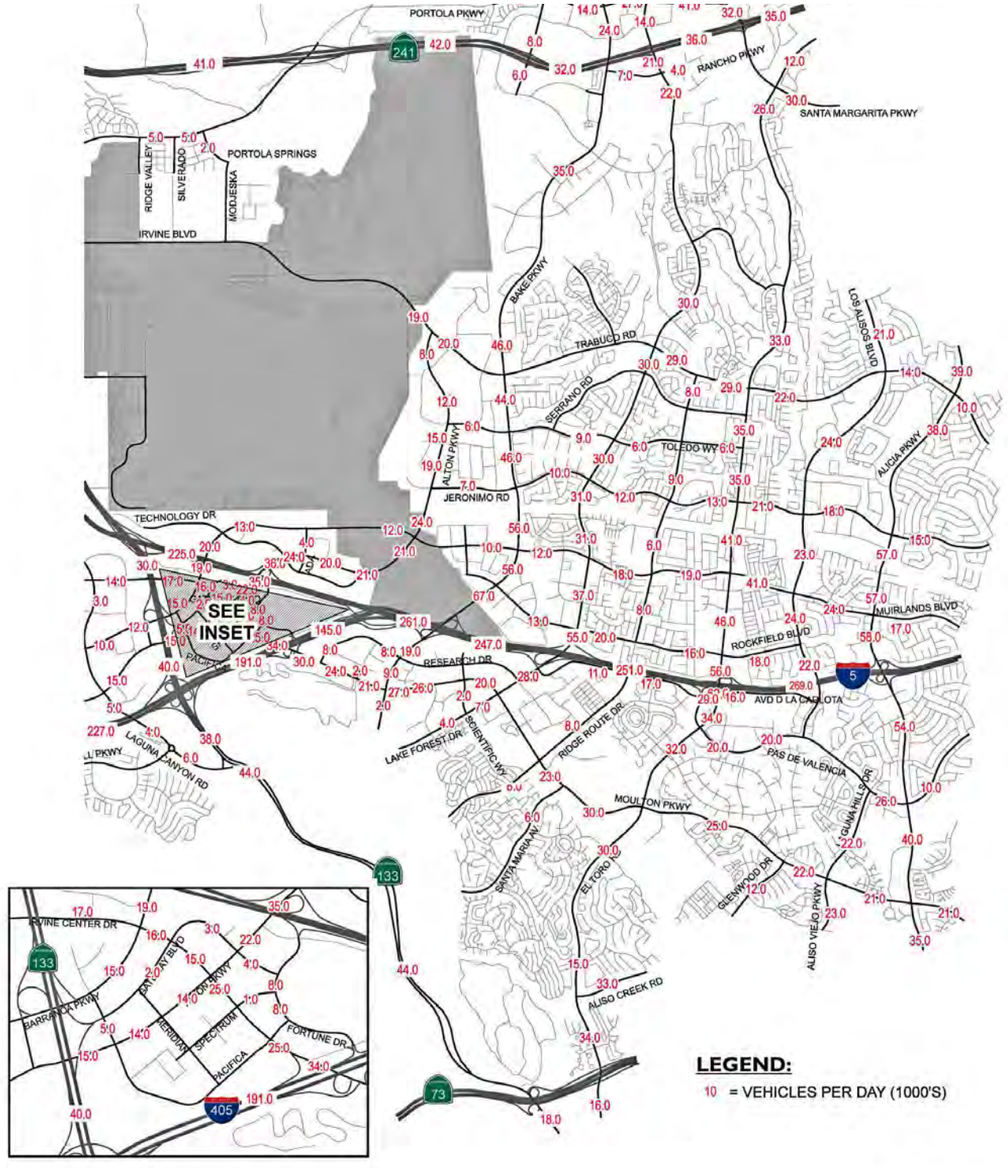
Source: Urban Crossroads 2013

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Existing ADT Volumes



West Study Area



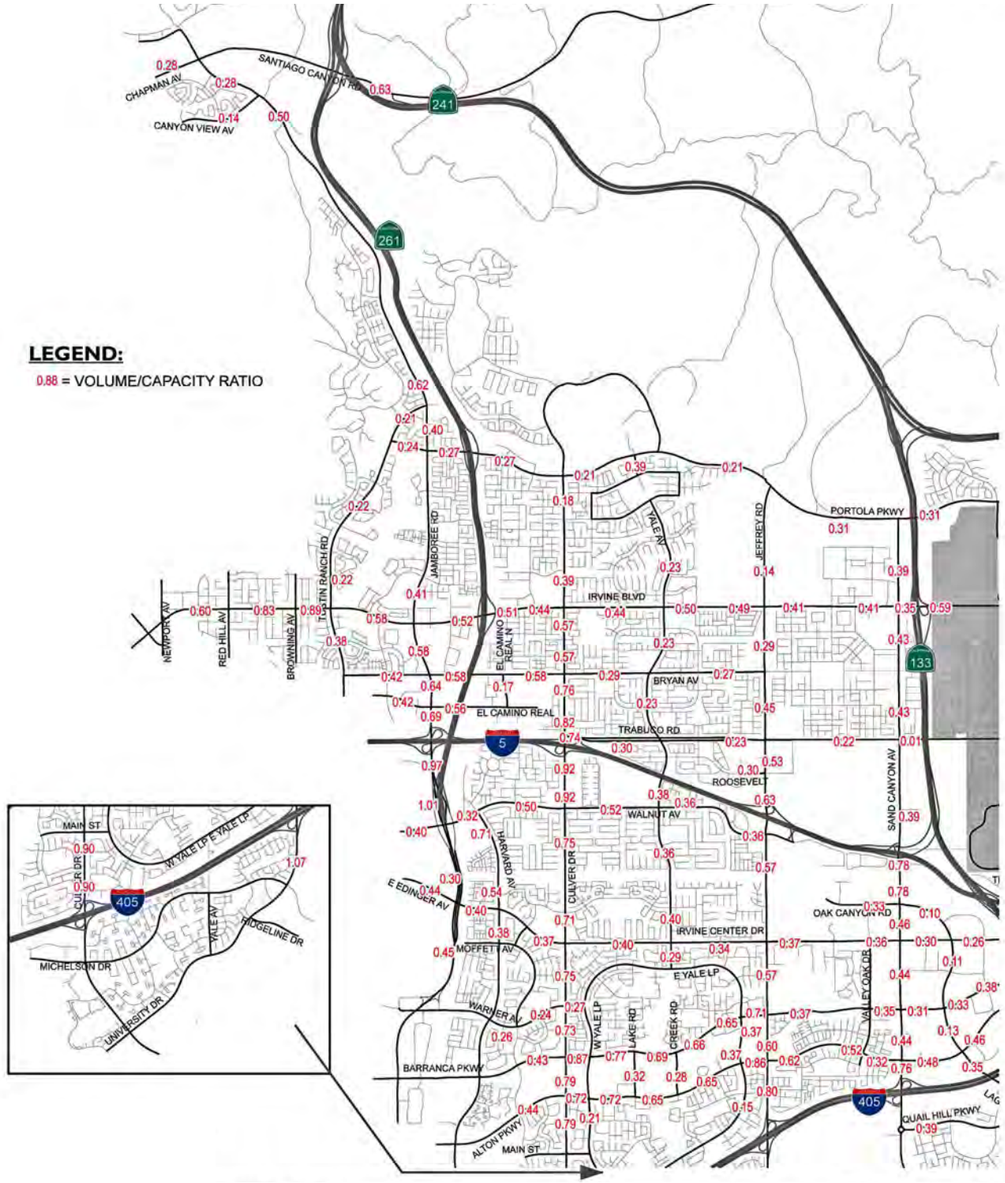
East Study Area

0 6,000
Scale (Feet)

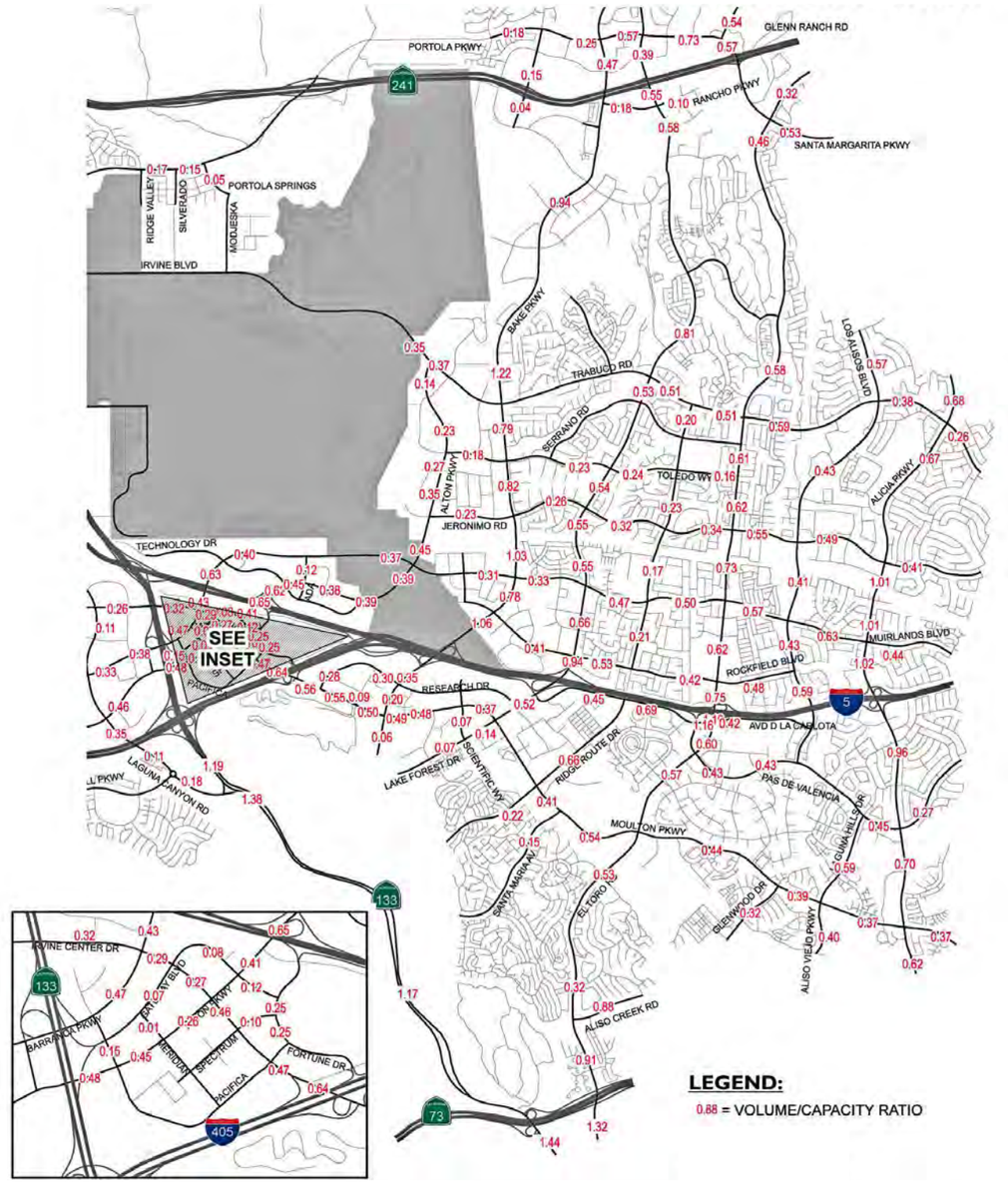
Source: Urban Crossroads 2013

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Existing ADT V/C Ratios



West Study Area



East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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5.12.2.7 Existing Peak Hour Intersection Levels of Service

Existing ICU values were calculated for the intersections illustrated in Figure 5.12-5 using peak hour traffic count data in combination with the existing lane configuration of each location. Use of the ICU methodology is consistent with the traffic analysis guidelines of the City and the OCTA CMP, and, by standard practice, the ICU methodology assumes that intersections are signalized. The existing conditions intersections peak hour levels of service are summarized in Table 5.12-3.

Table 5.12-3
Existing Intersection LOS Summary (ICU Methodology)

Intersection	Funded NITM[1]	LOS E OK	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
Newport Av at Irvine Bl			0.63	B	0.58	A
Red Hill Av at Irvine Bl	**F**		0.64	B	0.69	B
Browning Av at Irvine Bl			0.75	C	0.70	B
Tustin Ranch Rd at Irvine Bl	**F**		0.83	D	0.79	C
Jamboree Rd at Tustin Ranch Rd	**P**		0.49	A	0.59	A
Jamboree Rd at Portola Pw			0.56	A	0.74	C
Jamboree Rd at Irvine Bl*	**F**	Yes	0.78	C	0.70	B
Jamboree Rd at Bryan Av			0.64	B	0.66	B
Jamboree Rd at El Camino Real			0.59	A	0.66	B
Jamboree Rd at I-5 NB Ramps*			0.78	C	0.86	D
Jamboree Rd at I-5 SB Ramps*			0.79	C	0.73	C
Jamboree Rd SB at Walnut Av			0.77	C	0.53	A
Jamboree Rd NB at Walnut Av			0.32	A	0.49	A
Jamboree Rd at Edinger Av*		Yes	0.56	A	0.55	A
Jamboree Rd NB at Warner Av			0.31	A	0.81	D
Jamboree Rd at Barranca Pw		Yes	0.75	C	0.90	D
SR-261 SB Ramps at Portola Pw			0.31	A	0.35	A
SR-261 NB Ramps at Portola Pw			0.27	A	0.37	A
SR-261 SB Ramps at Irvine Bl*			0.44	A	0.48	A
SR-261 NB Ramps at Irvine Bl*			0.43	A	0.53	A
Culver Dr at Portola Pk			0.39	A	0.40	A
Culver Dr at Irvine Bl			0.61	B	0.64	B
Culver Dr at Bryan Av			0.66	B	0.58	A
Culver Dr at Trabuco Rd	**F**		0.59	A	0.65	B
Culver Dr at I-5 SB Ramps	**F**		0.60	A	0.74	C
Culver Dr at Walnut Av	**F**		0.68	B	0.76	C
Culver Dr at ICD			0.61	B	0.62	B
Culver Dr at Warner Av			0.62	B	0.62	B
Culver Dr at Barranca Pw	**P**		0.72	C	0.77	C
Culver Dr at Alton Pkwy			0.75	C	0.82	D
Culver Dr at I-405 NB Ramps			0.51	A	0.73	C
Culver Dr at I-405 SB Ramps			0.54	A	0.70	B
Culver Dr at University	**F**		0.70	B	0.90	D
Yale Av at Irvine Bl	**F**		0.59	A	0.74	C
Yale Av at Bryan Av			0.31	A	0.39	A

Table 5.12-3
Existing Intersection LOS Summary (ICU Methodology)

Intersection	Funded NITM[1]	LOS E OK	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
Yale Av at Trabuco Rd			0.37	A	0.39	A
Yale Av at Walnut Av			0.40	A	0.63	B
Yale Av at ICD			0.51	A	0.55	A
W Yale Lp at Barranca Pw			0.54	A	0.52	A
E Yale Lp at Barranca Pw			0.58	A	0.52	A
W Yale Loop at Alton Pw			0.49	A	0.64	B
E Yale Lp at Alton Pw			0.65	B	0.62	B
Jeffrey Rd at Portola Pw			0.34	A	0.35	A
Jeffrey Rd at Irvine Bl			0.47	A	0.55	A
Jeffrey Rd at Bryan Av			0.45	A	0.37	A
Jeffrey Rd at Trabuco Rd			0.45	A	0.42	A
Jeffrey Rd at Roosevelt			0.56	A	0.57	A
Jeffrey Rd at I-5 NB Ramps			0.52	A	0.59	A
Jeffrey Rd at Walnut Av	**F**		0.67	B	0.66	B
Jeffrey Rd at ICD	**F**		0.51	A	0.82	D
Jeffrey Rd at Barranca Pw	**P**		0.68	B	0.69	B
Jeffrey Rd at Alton Pw	**F**		0.86	D	0.78	C
Jeffrey Rd at I-405 NB Ramps	**P**		0.71	C	0.68	B
University Dr at I-405 SB Ramps			0.61	B	0.54	A
Sand Canyon Av at Portola Pw			0.27	A	0.29	A
Sand Canyon Av at Irvine Bl			0.50	A	0.49	A
Sand Canyon Av at Trabuco Pw	**F**		0.39	A	0.37	A
Sand Canyon Av at I-5 NB Ramps	**F**		0.67	B	0.50	A
Sand Canyon Av at Marine Wy			0.59	A	0.60	A
Sand Canyon Av at I-5 SB Ramps	**F**		0.67	B	0.61	B
Sand Canyon Av at Oak Canyon	**F**		0.50	A	0.51	A
Sand Canyon Av at ICD			0.42	A	0.43	A
Sand Canyon Av at Barranca Pw			0.43	A	0.44	A
Sand Canyon Av at Alto	**F**		0.54	A	0.63	B
Sand Canyon Av at I-405 NB Ramps	**F**		0.56	A	0.41	A
Sand Canyon Av at I-405 SB Ramps			0.74	C	0.51	A
Laguna Canyon Rd at ICD			0.20	A	0.27	A
Laguna Canyon Rd at Barranca Pw			0.27	A	0.26	A
Laguna Canyon Rd at Alton Pw			0.41	A	0.37	A
SR-133 SB Ramps at Irvine Bl*			0.39	A	0.43	A
SR-133 NB Ramps at Irvine Bl*			0.46	A	0.48	A
Banting at Barranca Pkwy			0.58	A	0.41	A
Banting at Alton Pw			0.54	A	0.41	A
Laguna Canyon Rd at Old Laguna Canyon Rd	**F**		0.90	~~C~~D	0.89	D
Laguna Canyon Rd at SR-73 NB Ramps*		Yes	1.00	E	0.83	D
Laguna Canyon Rd at SR-73 SB Ramps*		Yes	0.32	A	0.38	A
Portola Pw at SR-241 NB Ramps			0.16	A	0.10	A
Portola Pw at SR-241 SB Ramps			0.15	A	0.20	A
Barranca Pw at Technology	**P**		0.47	A	0.62	B
Barranca Pw at I-5 HOV Ramp		Yes	0.46	A	0.35	A

Table 5.12-3
Existing Intersection LOS Summary (ICU Methodology)

Intersection	Funded NITM[1]	LOS E OK	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
Barranca Pw at ICD		Yes	0.48	A	0.55	A
Barranca Pw at Pacifica		Yes	0.52	A	0.61	B
Pacifica at Gateway		Yes	0.51	A	0.55	A
Alton Pw at Portola Pw			0.40	A	0.23	A
Alton Pw at SR-241 Ramps			0.18	A	~~0.28~~0.21	A
Alton Pw at Irvine Bl	**F**	Yes	0.45	A	0.49	A
Alton Pw at Toledo Wy			0.38	A	0.36	A
Alton Pw at Jeronimo Rd			0.35	A	0.77	C
Alton Pw at Barranca Pw			0.45	A	0.58	A
Alton Pw at Ada			0.29	A	0.42	A
Alton Pw at Technology	**P**		0.39	A	0.55	A
Alton Pw at I-5 NB Ramps	**F**	Yes	~~0.62~~0.65	B	0.38	A
Alton Pw at Enterprise		Yes	0.60	A	0.54	A
Alton Pw at ICD	**P**	Yes	0.54	A	0.45	A
Alton Pw at Pacifica		Yes	0.53	A	0.33	A
Fortune Dr /I-5 SB Ramps		Yes	0.27	A	0.52	A
Enterprise Dr at Fortune Dr*		Yes	0.40	A	0.70	B
ICD at Enterprise Dr*	**P**	Yes	0.59	A	0.54	A
ICD at I-405 SB Ramps*	**P**	Yes	0.59	A	0.55	A
Bake Pw at Portola Pw			0.71	A	0.58	A
Bake Pw at Irvine Bl	**F**	Yes	0.73	C	0.72	C
Bake Pw at Toledo Wy			0.68	C	~~0.63~~0.61	B
Bake Pw at Jeronimo Rd	**F**		0.81	D	0.76	C
Bake Pw at Muirlands Bl			0.58	A	0.64	B
Bake Pw at Rockfield Bl			0.54	A	0.63	B
Bake Pw at I-5 NB Ramps		Yes	0.82	D	0.58	A
Bake Pw at I-5 SB Ramps	**F**	Yes	0.67	B	0.72	C
Bake Pw at Research Dr			0.36	A	0.46	A
Bake Pw at ICD			0.34	A	0.39	A
Lake Forest Dr at SR-241 NB Ramp			0.29	A	0.35	A
Lake Forest Dr at Portola Pw			0.46	A	0.69	B
Lake Forest Dr at SR-241 SB Ramp			0.38	A	0.40	A
Lake Forest Dr at Trabuco Rd			0.55	A	0.59	A
Lake Forest Dr at Toledo Wy			0.52	A	0.52	A
Lake Forest Dr at Jeronimo Rd	**P**		0.69	B	0.67	B
Lake Forest Dr at Muirlands Bl	**F**		0.54	A	0.72	C
Lake Forest Dr at Rockfield Bl	**P**	~~Yes~~	0.54	A	0.68	B
Lake Forest Dr at I-5 NB Ramps			0.44	A	0.66	B
Lake Forest Dr at Avenida Carlota/I-5 SB	**F**	Yes	0.70	B	0.70	B
Lake Forest Dr at ICD		Yes	0.41	A	0.51	A
Ridge Route Dr at Muirlands Bl			0.48	A	0.60	A
Ridge Route Dr at Rockfield Bl	**P**		0.38	A	0.47	A
Ridge Route Dr at Avenida Carlota			0.30	A	0.63	B
Ridge Route at Moulton Pw			0.44	A	0.60	A
Paseo de Valencia at Ave	**P**		0.47	A	0.58	A

Table 5.12-3
Existing Intersection LOS Summary (ICU Methodology)

Intersection	Funded NITM[1]	LOS E OK	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
Santa Maria Av at Moulton Pw			0.42	A	0.65	B
El Toro Rd at Muirlands Bl			0.62	B	0.74	C
El Toro Rd at Rockfield Bl			0.52	A	0.55	A
El Toro Rd at I-5 NB Ramps*		Yes	0.61	B	0.82	D
El Toro Rd at Avenida Carlota*	**P**	Yes	~~0~~**1.03**	**F**	**1.26**	**F**
El Toro Rd at Paseo de Valencia			0.47	A	0.58	A
El Toro Rd at Moulton Pw*		Yes	0.59	A	0.53	A
El Toro Rd at Aliso Creek Rd			0.71	C	**0.93**	**E**
El Toro Rd at SR-73 NB Ramps*		Yes	0.69	B	0.68	B
El Toro Rd at SR-73 SB Ramps*		Yes	0.45	A	0.66	B
I-5 NB Ramps at Trabuco Rd			0.49	A	0.54	A
Laguna Canyon Rd at Quail Hill Pw			0.24	A	0.28	A
Bake Pw at Commercentre Dr			0.56	A	0.56	A
Ridge Route Dr at Trabuco Rd			0.49	A	0.59	A
Ridge Route Dr at Toledo Wy			0.33	A	0.30	A
Ridge Route Dr at Jeronimo Rd			0.45	A	0.46	A
Glenn Ranch Rd at Portola Pw			0.57	A	0.55	A
Portola Pw East at SR-241 Ramps			0.43	A	0.59	A
El Toro Rd at Portola Pw			0.64	B	0.61	B
El Toro Rd at Trabuco Rd*		Yes	0.68	B	0.56	A
El Toro Rd at Toledo Wy			0.54	A	0.46	A
El Toro Rd at Jeronimo Rd	**P**		0.65	B	0.77	C
Los Alisos Bl at Trabuco Rd			0.66	B	0.68	B
Los Alisos Bl at Jeronimo Rd	**P**		~~0.69~~0.67	B	~~0.78~~0.74	C
Muirlands Bl at Los Alisos Bl	**P**		~~0.67~~0.64	B	~~0.74~~0.69	~~C~~B
Los Alisos Bl at Rockfield Bl	**P**		~~0.64~~0.61	B	~~0.69~~0.50	~~B~~A
Los Alisos Bl at Avenida Carlota			~~0.61~~0.41	~~B~~A	~~0.50~~0.46	A
Los Alisos Bl at Paseo de Valencia			~~0.41~~0.44	A	~~0.46~~0.53	A
Moulton Pw at Glenwood/Indian Creek			0.46	A	0.53	A
Laguna Hills Dr at Paseo de Valencia			0.59	A	0.70	B
Moulton Pw at Laguna Hills Dr			0.53	A	0.61	B
Trabuco Rd at Alicia Pw			0.70	B	0.64	B
Jeronimo Rd at Alicia Pw			0.72	C	0.72	C
Alicia Pw at Muirlands Bl	**P**		0.68	B	0.82	D
I-5 NB Ramps at Alicia Pw			0.55	A	0.59	A
I-5 SB Ramps at Alicia Pw			0.75	C	0.82	D
Alicia Pw at Paseo de Valencia			0.59	A	0.61	B
Moulton Pw at Alicia Pw			0.58	A	0.67	B
Scientific Wy at ICD			0.49	A	0.64	B
Loop Rd at Jamboree Rd			0.41	A	0.28	A
Sand Canyon Av at Burt Rd			0.65	B	0.55	A
Jamboree Rd at Santiago Canyon Rd			0.52	A	0.57	A
Jamboree Rd at Chapman Av			0.44	A	0.76	~~B~~C
SR-241/SR-261 SB Ramps at Chapman Av			0.34	A	0.45	A
SR-241/SR-261 NB Ramps at Chapman Av			0.37	A	0.60	A

Table 5.12-3
Existing Intersection LOS Summary (ICU Methodology)

Intersection	Funded NITM[1]	LOS E OK	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			ICU	LOS	ICU	LOS
SR-241 NB Ramp at Santiago Canyon Rd			0.28	A	0.35	A
Jamboree Rd at Canyon View			0.61	B	0.33	A
El Camino Real N at Bryan Av			0.37	A	0.39	A
Bake Pw N at Rancho Pw North			0.58	A	0.73	C
Lake Forest Dr at Rancho Pw North			0.36	A	0.45	A
Bake Pw at Rancho Pkw			0.69	B	0.65	B
Ridge Valley at Portola Pw			0.26	A	0.16	A
Portola Springs at Portola Pw			0.17	A	0.15	A
Modjeska / A St at Irvine Bl			0.44	A	0.43	A

Source: Urban Crossroads, 2012.
Bold = Deficient Intersection
* CMP Intersection
[1]. Fully Funded (F), Partially Funded (P)

Based on the intersection LOS performance criteria outlined above, the study area intersections generally appear to operate at acceptable levels of service during peak hours with the exception of the following intersections:

- El Toro Road at Aliso Creek Road
- El Toro Road at Avenida Carlota

5.12.2.8 Existing Freeway Ramp Levels of Service

Existing AM and PM peak hour ramp volumes were taken from intersection counts at each location in the study area where freeway ramps intersect the arterial system. The observed peak hour ramp volumes were applied together with the ramp capacities described above to calculate existing AM and PM peak hour ramp V/C ratios and corresponding LOS values. The freeway ramp analysis presented here differs from the above peak hour intersection analysis in that the ramp analysis here involves the peak hour V/C of the ramp itself, whereas the intersection analysis involves the ICU value of the intersection of the ramp with the arterial street.

To address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road interchanges have been analyzed using the HCM methodology in addition to the ICU methodology. The resulting existing conditions peak hour levels of service based on the HCM methodology are summarized in Table 4.2 of the Traffic Study included in Appendix I). As the summary table indicates, each of the ramp intersections generally operates at an acceptable LOS (i.e., LOS D or better).

Figure 5.12-6 illustrates the interchange locations where freeway ramps were analyzed. Freeway ramps are part of the CMP highway network and the acceptability threshold in the CMP is LOS E. Table 4-3 of the Traffic Study included in Appendix I presents a summary of the levels of service at existing Freeway/Tollway Ramps. The freeway ramps generally operate at acceptable service levels during the

peak hours under existing traffic conditions, with the exception of the following ramp junctions:

- I-5 Southbound Off-Ramp to Bake Parkway

Table 4-3 of the Traffic Study included in Appendix I presents a summary of the levels of service at existing Freeway/Tollway Ramps.

5.12.2.9 Existing Freeway Mainline Levels of Service

To determine existing peak hour operating conditions for mainline freeway segments, peak hour traffic count data was compiled for the freeway system in the traffic analysis study area. The AM and PM peak hour freeway mainline volumes were applied together with the capacities described above for mixed-flow (general purpose) lanes and high-occupancy vehicle ("HOV") lanes to calculate existing peak hour V/C ratios, by direction, for freeway mainline segments in the study area. When evaluating existing freeway conditions (i.e., based on traffic count data), the V/C and LOS criteria are applicable only in situations where the observed traffic volume occurs in stable flow. When the peak hour V/C ratio on a freeway mainline segment nears 1.0, unstable conditions can occur which may result in a breakdown in traffic flow. This breakdown in flow causes a reduction in capacity (vehicle speeds drop below the speed at which maximum capacity is available), and hence the V/C increases, causing a further reduction in speed. At the same time, the reduction in capacity and increase in V/C causes queue build-up and the stop-and-go conditions can extend for a considerable distance upstream of the problem freeway segment. Furthermore, this occurrence, and its severity (i.e., length of queue), can vary from day to day even when day-to-day fluctuations in traffic volumes are relatively small.

Table 4-3 of the Traffic Study included in Appendix I summarizes existing AM and PM peak hour V/C ratios for freeway mainline segments in the study area. The freeway mainline segments operate at acceptable service levels (LOS "E" or better) during the peak hours under existing traffic conditions, with the exception of the following location:

- I-5 Southbound South of Alicia Pkwy

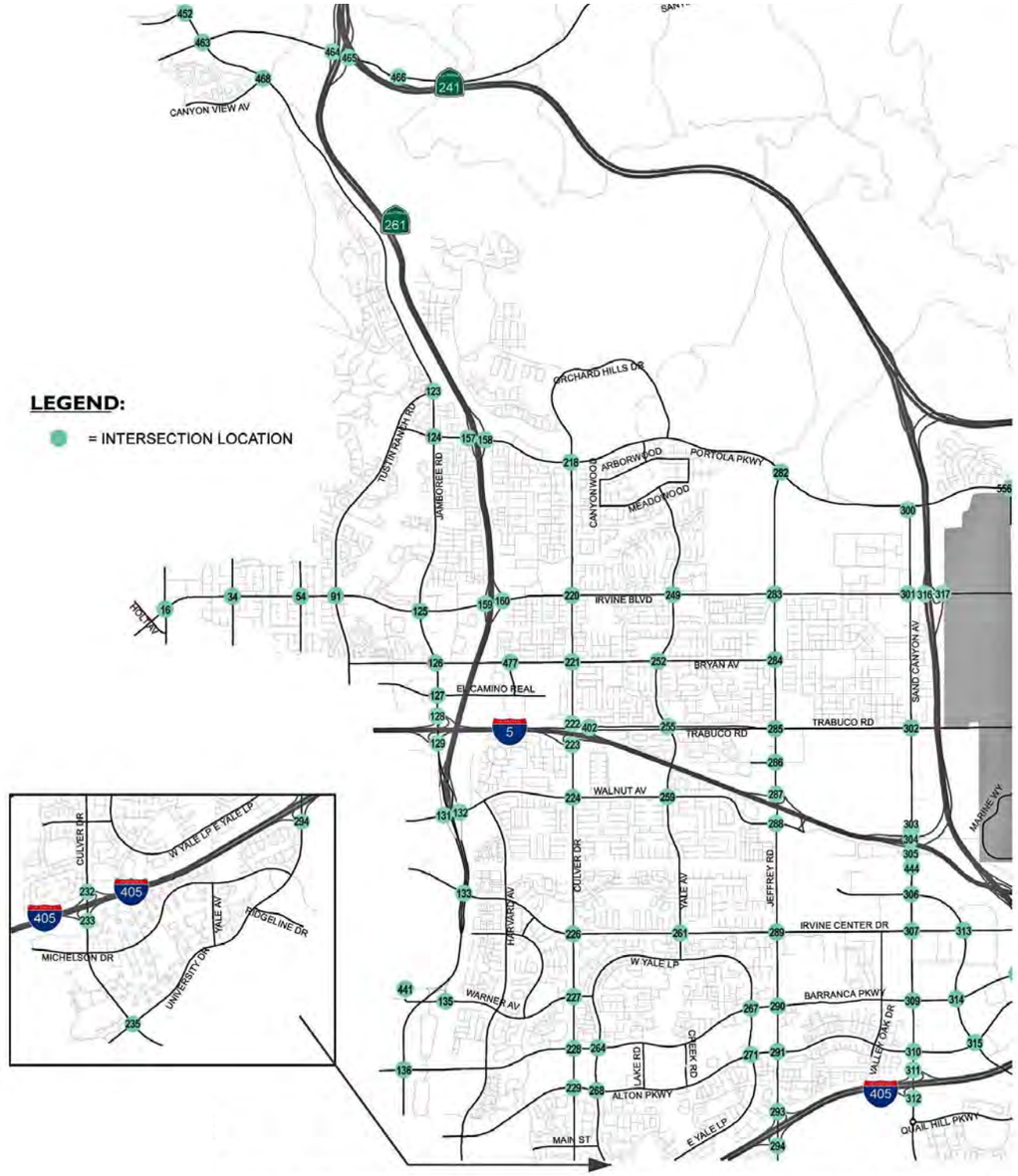
The LOS results based on V/C indicate measures of demand and are used as a basis for future mainline segment analysis in the Traffic Study. Note that future traffic volumes presented in the Traffic Study represent "demand" and no attempt is made to estimate operating conditions such as discussed here (i.e., only the V/C LOS based on the future demand traffic volume is reported).

5.12.2.10 Planned Circulation System

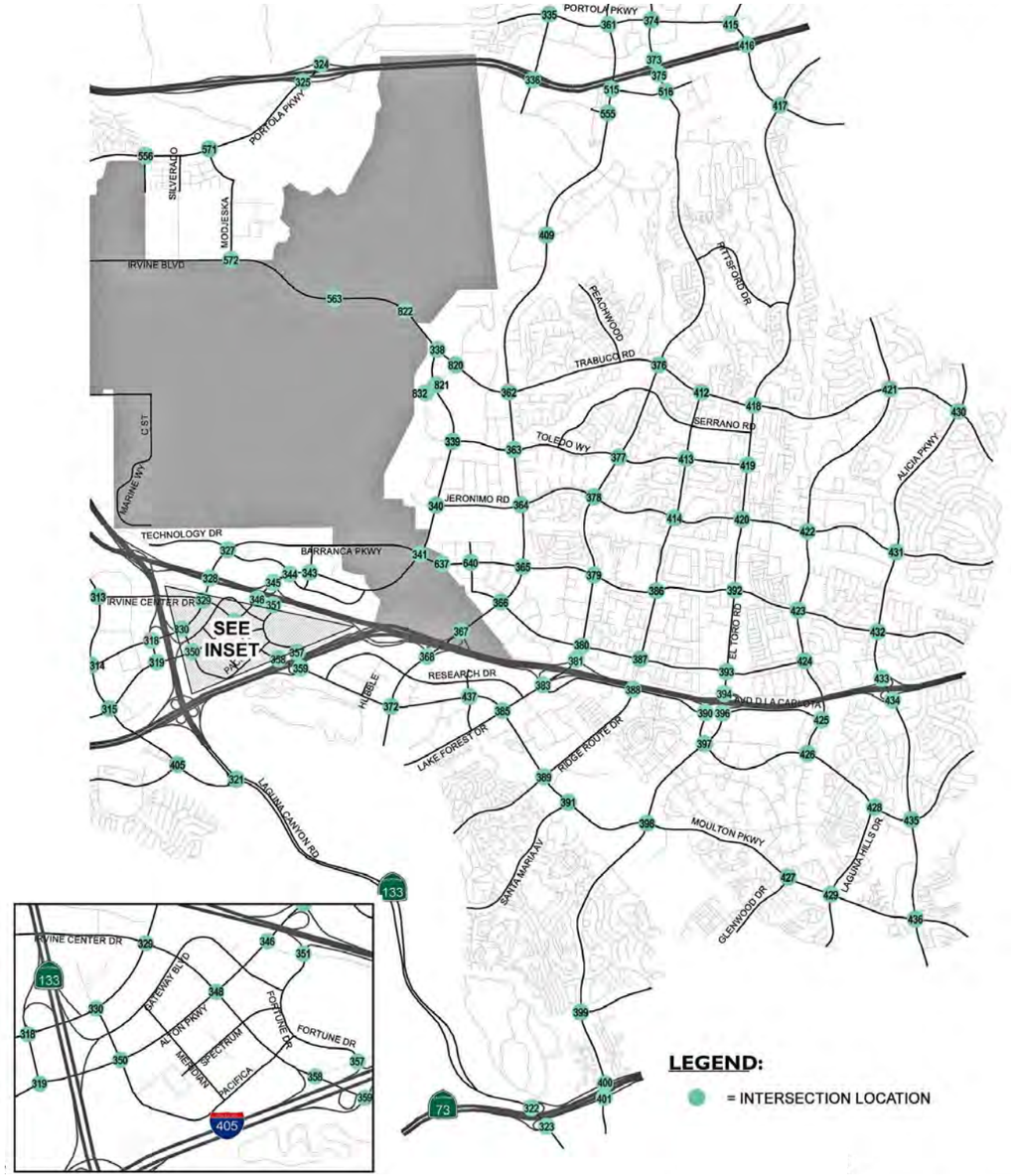
The circulation system that is planned in the traffic analysis study area under year 2015 conditions is illustrated on Figure 5.12-7. On-site roadways within Districts 1 North, 1 South, 4, 7 and 8 are planned to be constructed for the 2012 Modified Project.

Midblock travel lanes on individual segments of the year 2030 roadway network are shown in Figure 5.12-8. The year 2015 and year 2030 circulation systems only assume improvements that are committed for construction (i.e., public agency capital improvement programs, state transportation improvement program, etc.) or would be constructed as part of previously entitled development by 2015 or 2030.

Existing Intersection Location Map



West Study Area



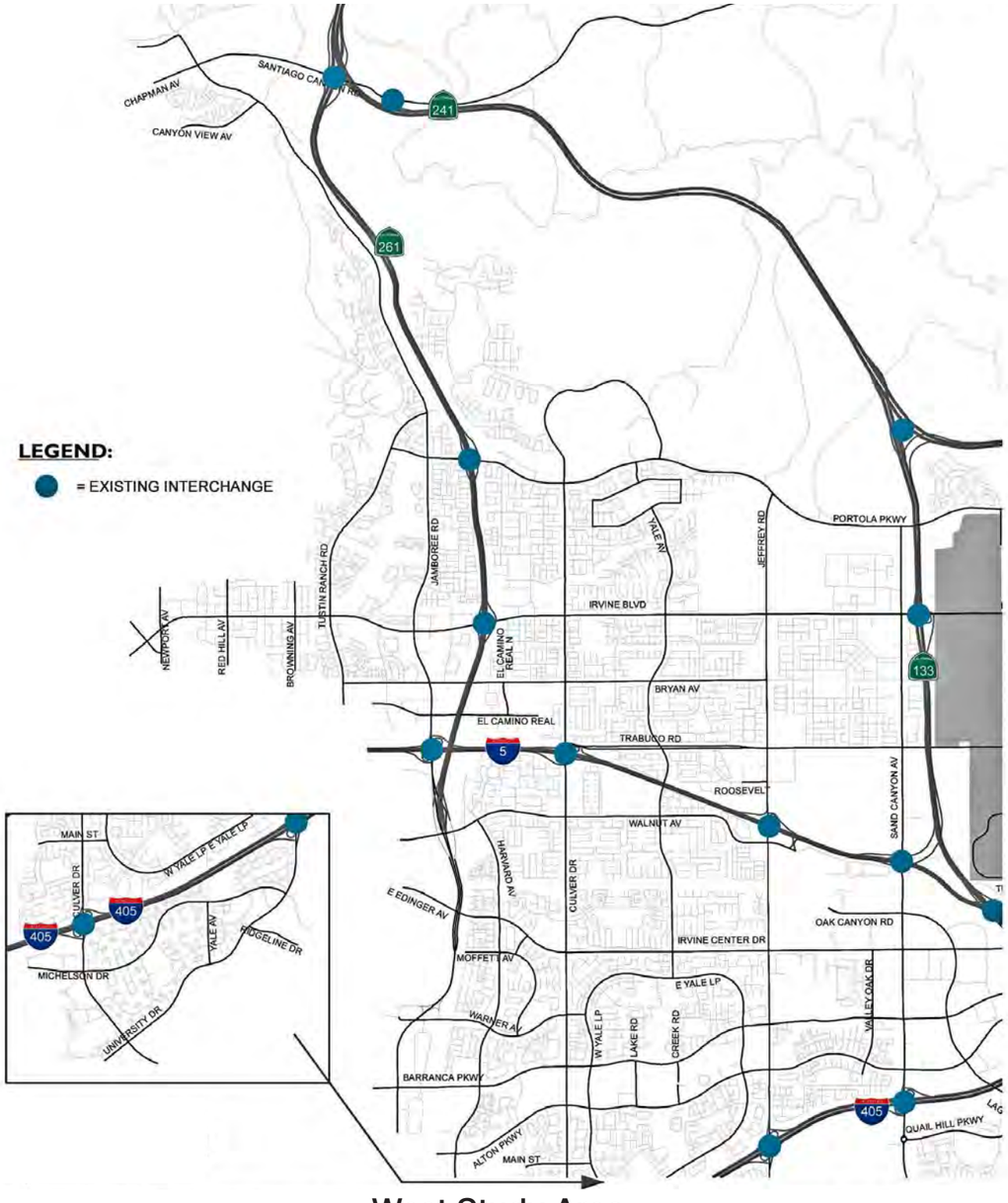
East Study Area

0 6,000
Scale (Feet)

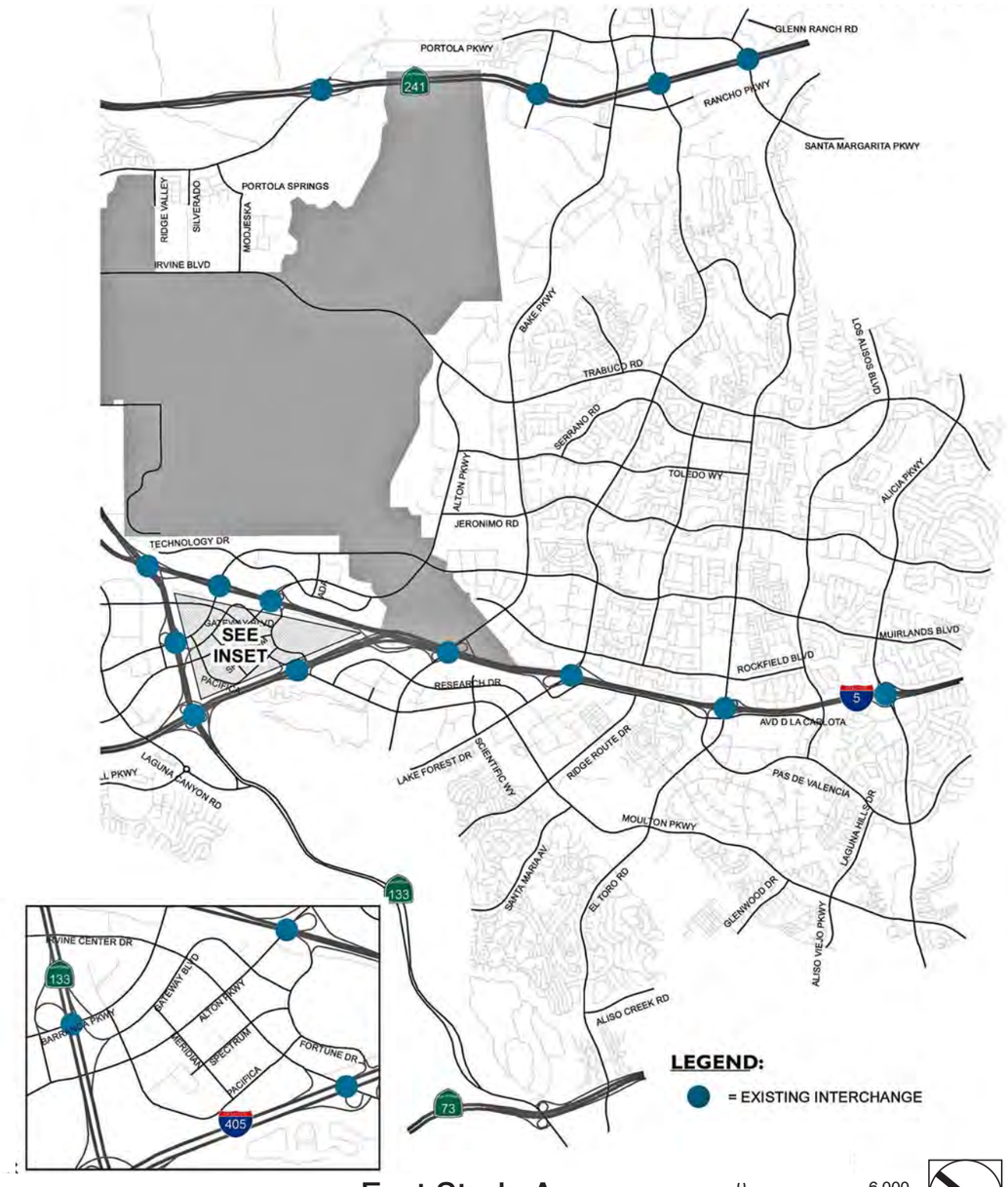
Source: Urban Crossroads 2013

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Existing Freeway Interchange Locations



West Study Area

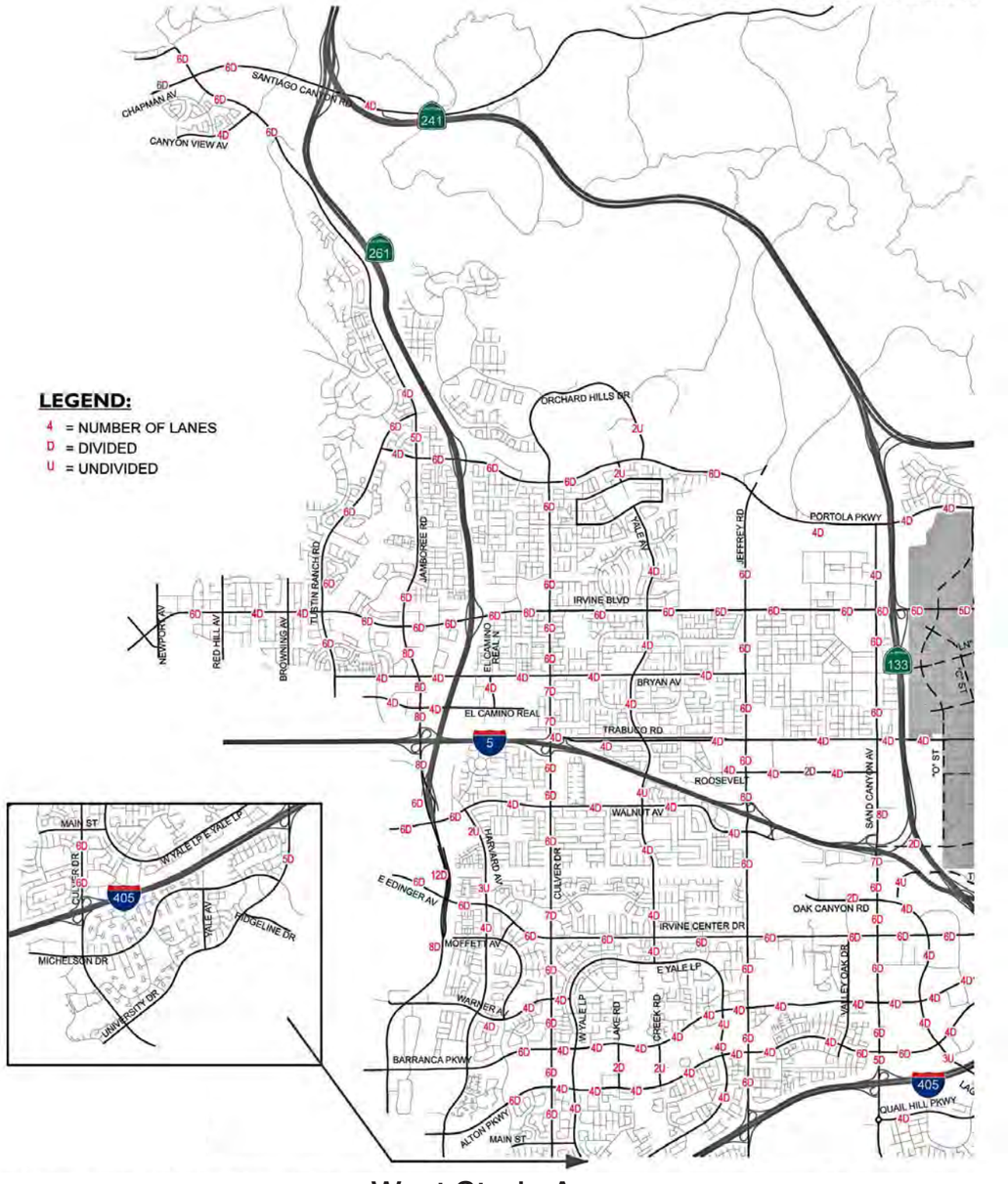


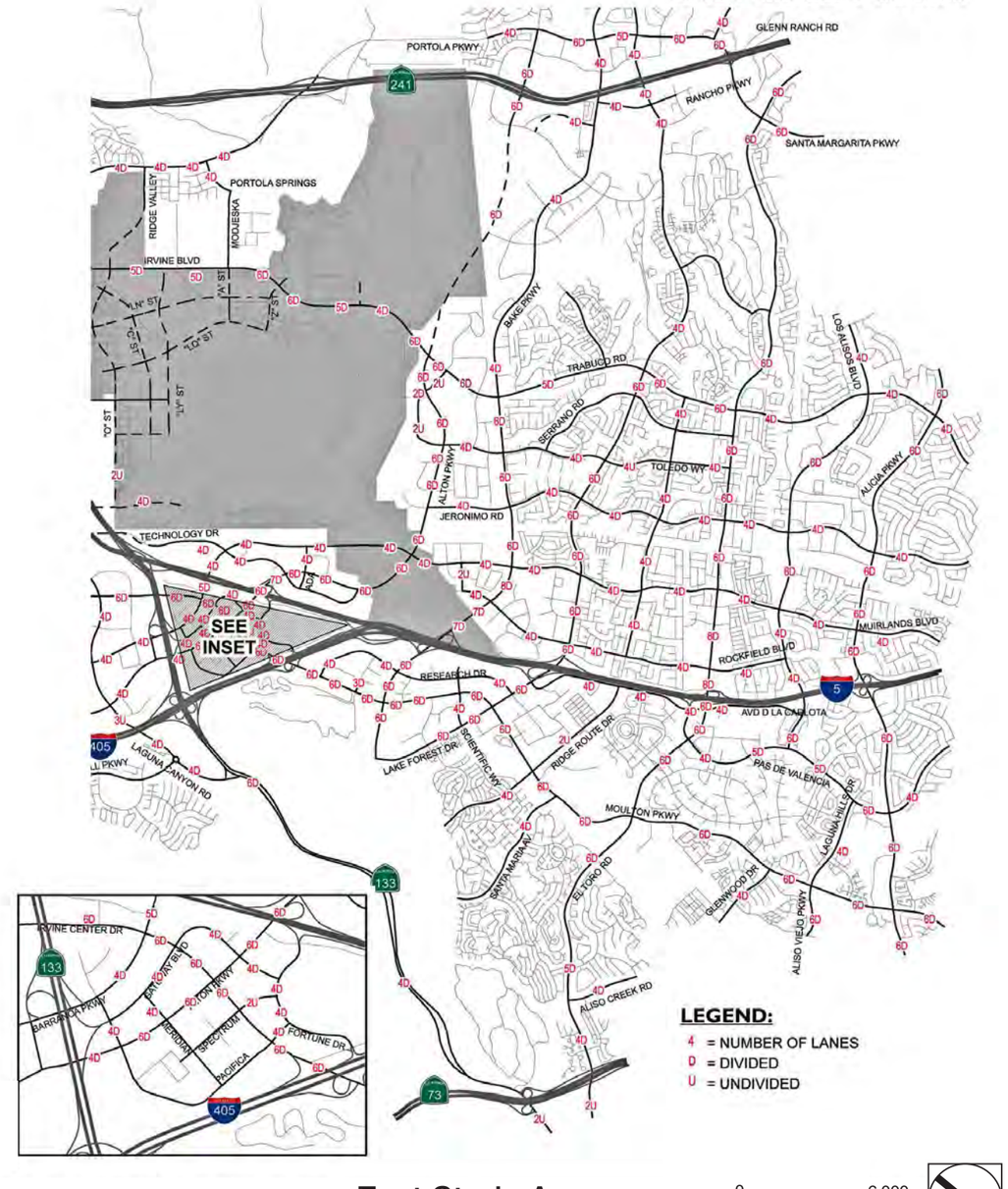
East Study Area

Source: Urban Crossroads 2013

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2015 Circulation System

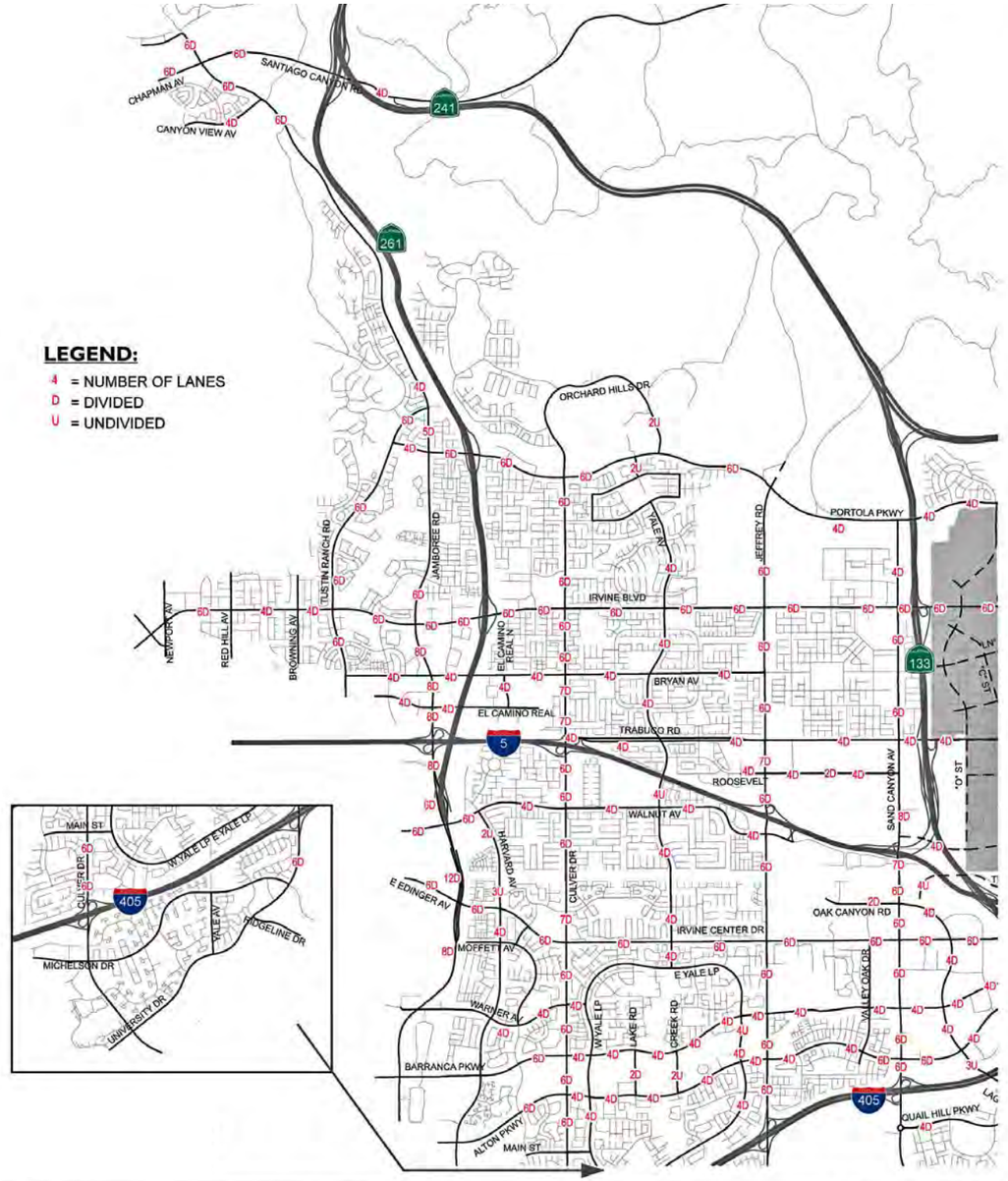




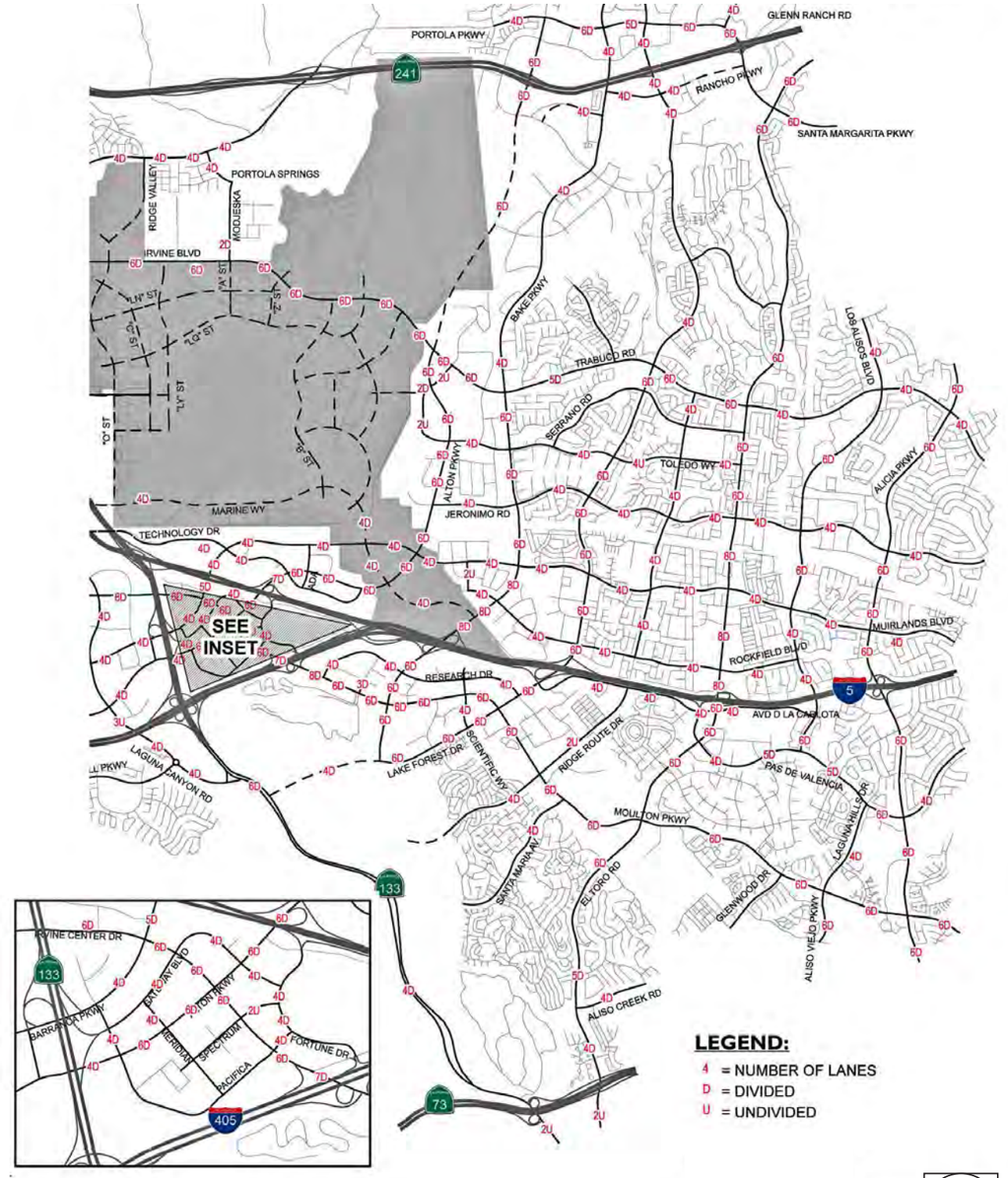
Source: Urban Crossroads 2013

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2030 Circulation System



West Study Area



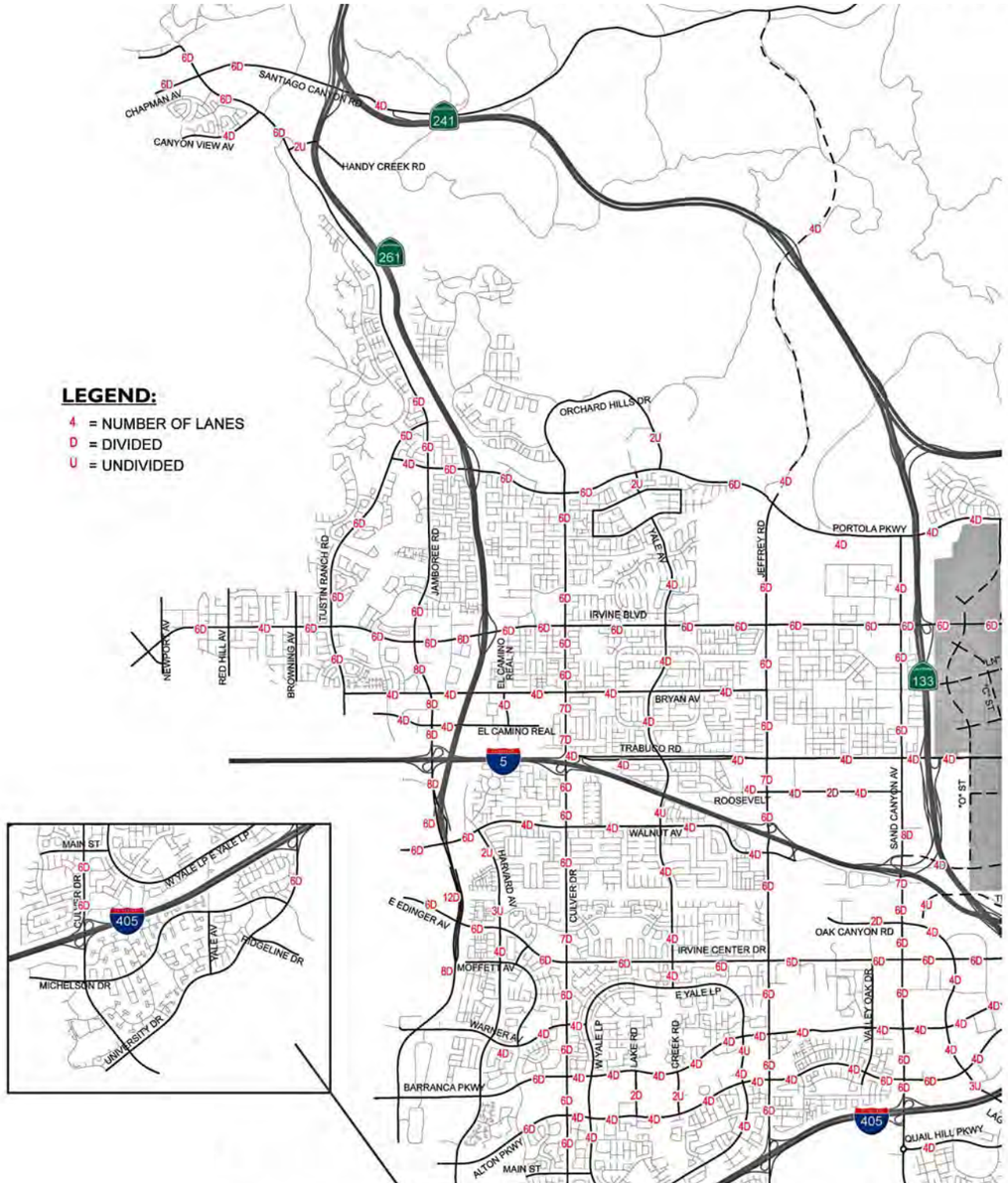
East Study Area

0 6,000
Scale (Feet)

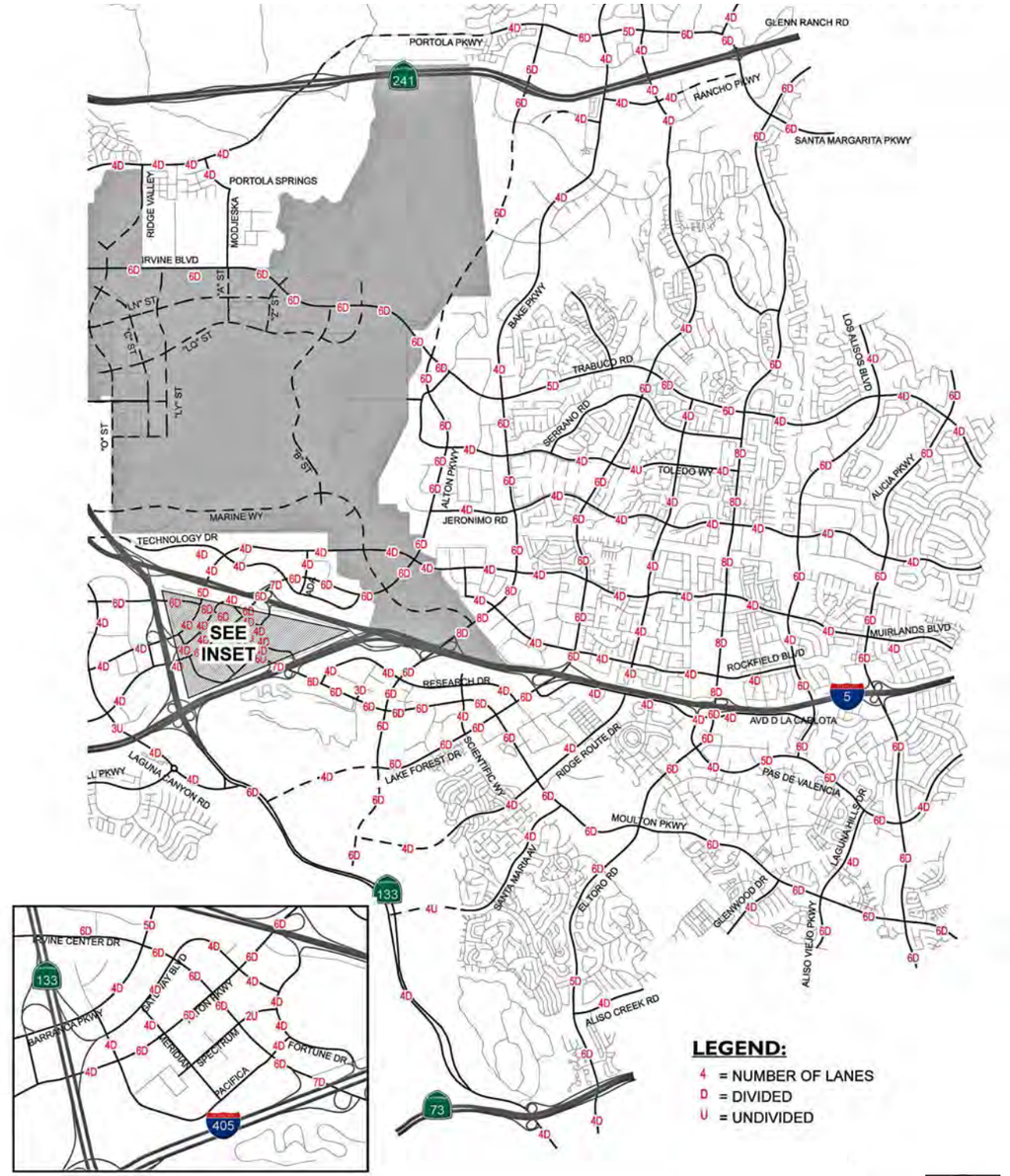
Source: Urban Crossroads 2013

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General Plan Buildout (Post-2030) Circulation System



West Study Area



East Study Area

Source: Urban Crossroads 2013

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The Post-2030 highway network is depicted in Figure 5.12-9. The Post-2030 scenario assumes full buildout of the General Plan Circulation Elements for the City and its neighboring cities as well as the Orange County Master Plan of Arterial Highways ("MPAH"). This includes a number of unfunded, and therefore non-committed, planned circulation system improvements.

Table 4-5 in the Traffic Study (Appendix I) presents the committed roadway improvements for years 2010-2015. Table 4-6 in the Traffic Study lists the improvements that are committed to be in place by 2030, and Table 4-7 in the Traffic Study lists the improvements assumed for Post-2030. Tables 4-8 through 4-10 in the Traffic Study present the intersection committed projects for years 2015, 2030 and Post-2030 which represent the background circulation assumptions for each year.

5.12.3 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City has determined that a project would normally have a significant effect on the environment if the project would:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates the City's determination in the Initial Study for the 2012 Modified Project (Appendix A to this DSSEIR) that impacts associated with the following impacts would be less than significant:

- Impact T-3
- Impact T-4
- Impact T-5

Accordingly, these impacts will not be addressed in the following analysis.

5.12.4 The 2011 Approved Project

The 2011 Certified EIR concluded that with the 2011 Approved Project all intersections and roadway/freeway/tollway/ramp segments would operate at acceptable levels of service with the existing or planned improvements. However, inasmuch as the primary responsibility for approving and/or completing certain improvements located outside of Irvine lies with agencies other than the City (i.e., City of Lake Forest, Laguna Woods, Mission Viejo, County of Orange, and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the City's control (i.e., the City cannot undertake or require improvements outside of its jurisdiction). Should that occur, impacts relating to traffic generated by the 2011 Approved Project would remain significant.

5.12.5 Environmental Impacts of the 2012 Modified Project

Project Design Features

The following project design feature applies to the 2012 Modified Project to help to reduce and avoid potential impacts related to traffic.

PDF 12-1 The 2012 Modified Project's optional conversion of non-residential square footage to residential units, if implemented, will be subject to a traffic analysis to assess traffic impacts, if any, due to the specific changes in land use and will include a reduction in allowable Multi-Use intensity in terms of equivalent traffic generation (excluding DB units) based on AM peak, PM peak, and ADT. Conversions to other non-residential uses within the Multi-Use category, if implemented, will also be subject to a traffic analysis to assess traffic impacts, if any, and shall be reflected in terms of equivalent traffic generation based on AM peak, PM peak, and ADT.

The following impact analysis addresses impacts that the Initial Study disclosed as potentially significant impacts of the 2012 Modified Project, as compared to the 2011 Approved Project. The applicable impacts are identified in brackets after the impact statement.

IMPACT 5.12-1: TRIP GENERATION ASSOCIATED WITH THE 2012 MODIFIED PROJECT WOULD NOT IMPACT LEVELS OF SERVICE FOR THE EXISTING AREA ROADWAY SYSTEM, AS COMPARED TO THE APPROVED PROJECT. [IMPACTS T-1 AND T-2]

Impact Analysis:

5.12.5.1 Proposed Trip Generation

Trip generation rates used in the Heritage Fields Project 2012 GPA/ZC Traffic Study are derived from Irvine Traffic Model (ITAM) socio-economic conversion factors, production attraction rates, and time of day trip table factors. ITAM converts production-attraction trip tables to directional origin-destination tables by time period, using Vehicle Trips in Motion factors. Trip rates are responsive to this flow of data processing in ITAM, and they directly account for the resulting travel patterns which are analyzed in the Traffic Study.

The land use and trip generation for the project site for without Project, 2012 Modified Project Option 1, and 2012 Modified Project Option 2 under 2015, 2030, and Post-2030 conditions is summarized in Tables 3-2 to 3-8 of the traffic study. The peak hour and average daily trip generation based on the land use trip rates for the 2012 Modified Project under each of the future timeframes (2015, 2030 and Post-2030) is summarized in Table 5.12-4.

For interim year conditions, the 2012 Modified Project change in allowable uses and intensities involves District 1 South and portions of District 1 North. Within the footprint of those land uses in District 1 North and 1 South which change in either Option 1 or Option 2, the Without Project scenario assumes existing occupied land uses. Outside of the footprint of those land uses which change in District 1 North and 1 South, development assumptions in the current City of Irvine Transportation Analysis Model (ITAM) version 8.4-10 Year 2015 are utilized in this analysis.

Under 2015 conditions, the 2012 Modified Project – Heritage Fields property is forecast to generate 1,911 more AM peak hour trips, 2,263 more PM peak hour trips and 23,623 more daily trips compared to Without Project conditions.

Under 2030/Post-2030 conditions, the 2012 Modified Project – Heritage Fields property with Option 1 or Option 2 is forecast to generate 1,377 more AM peak hour trips, 846 more PM peak hour trips and 9,784 more daily trips compared to 2011 Approved Project (baseline) conditions. The 2012 Modified Project – Additional Public Uses are forecast to generate 483 more AM peak hour trips, 304 more PM peak hour trips, and 3,411 daily trips compared to the 2011 Approved Project (baseline) conditions.

Table 5.12-4
ITAM Trip Generation Comparison between Without Project (2015) or 2011 Approved Project (Baseline, 2030 & Post-2030) and the 2012 Modified Project[1]

Timeframe/Scenario	*AM Peak Hour Trips*	*PM Peak Hour Trips*	*Average Daily Trips*
Heritage Fields			
Year 2015			
Without Project	3,741	3,823	41,272
2012 Modified Project	5,652	6,086	64,895
Difference	*1,911*	*2,263*	*23,623*
Year 2030/Post-2030			
2011 Approved Project (Baseline)	10,902	12,131	127,930
2012 Modified Project	12,279	12,977	137,714
Difference	*1,377*	*846*	*9,784*
Additional Public Uses			
Year 2015			
Without Project	255	162	1,820
2012 Modified Project	257	164	1,844
Difference	*2*	*2*	*24*

Year 2030/Post-2030			
2011 Approved Project (Baseline)	257	165	1,845
2012 Modified Project	740	469	5,256
Difference	*483*	*304*	*3,411*

Source: Urban Crossroads, 2012.
[1] Trip Generation summaries include trips generated by Density Bonus units and additional public uses which are not subject to the ADT limitations in the zoning code.

Trip distribution patterns for the 2012 Modified Project were developed using the ITAM traffic model and are presented here for each of the future timeframes that were analyzed (2015, 2030 and Post-2030). The 2015, 2030 and Post-2030 trip distribution patterns for the 2012 Modified Project with Option 1 are shown in Exhibits 3-2 through 3-4, and the 2012 Modified Project Option 2 trip distribution patterns are depicted in Exhibits 3-5 through 3-7 of the Traffic Study (Appendix I).

5.12.5.2 Existing-Plus 2012 Modified Project

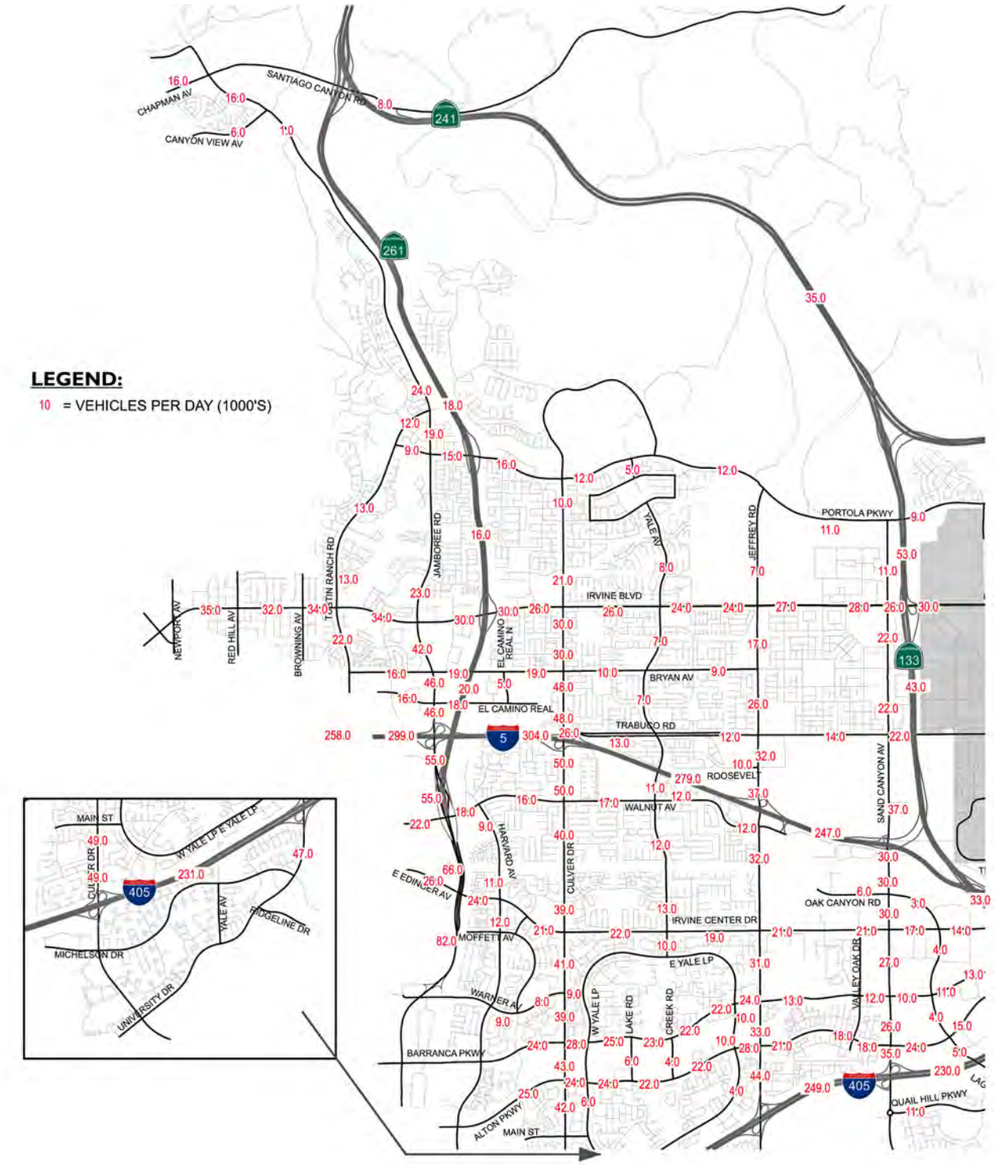
Existing-Plus-2012 Modified Project Circulation System and ADT Volumes

The baseline for this DSSEIR is the 2011 Approved Project, not the existing conditions at the time that the environmental documentation is prepared. Nonetheless, for informational purposes only, the Traffic Study includes the Existing-Plus 2012 Modified Project Option 1, and Existing-Plus 2012 Modified Project Option 2 conditions analyses. These scenarios hypothetically assume that the 2012 Modified Project (Option 1, and Option 2) would be constructed immediately. "Existing" refers to the conditions in the study area at the time the Traffic Study was prepared. The Existing-Plus-2012 Modified Project (Option 1, and Option 2) analyses are a theoretical construct; a project of this scale will obviously not occur instantaneously, and this scenario does not take into account the cumulative growth that would realistically occur during the course of development of the 2012 Modified Project, which would include various on-site and off-site infrastructure improvements in conjunction with progressive growth in the NITM area.

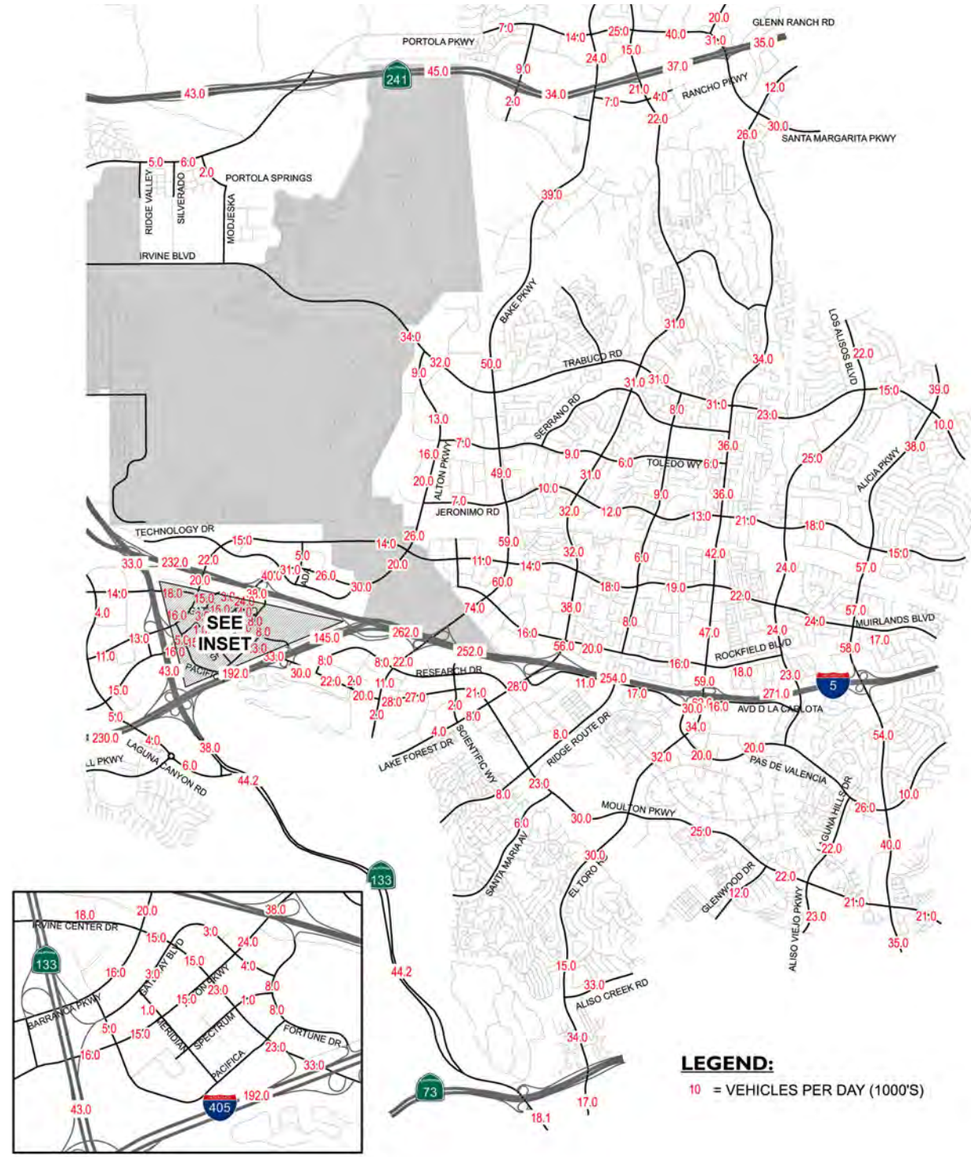
The Existing-Plus-2012 Modified Project average daily traffic ("ADT") volumes are illustrated in Figures 5.12-10 and 5.12-11, respectively. The Existing-Plus-2012 Modified Project corresponding V/C ratios for Option 1and Option 2 are illustrated in Figures 5.12-12 and 5.12-13, respectively. Based on the ADT V/C performance criteria and impact thresholds set forth in Table 5.12-1, thirteen (13) arterial roadway segments are potentially impacted by the 2012 Modified Project for Option 1 or Option 2:

- Avenida Carlota (Paseo de Valencia to El Toro Rd)
- Bake Pkwy (north of Commercentre Dr)
- Bake Pkwy (north of Irvine Bl)
- Bake Pkwy (north of Muirlands Bl)
- Bake Pkwy (south of Rockfield Bl)
- El Toro Rd (south of SR-73)
- Lake Forest Dr (south of Rockfield Bl)
- Irvine Bl (east of SR-133 Northbound Ramps)
- Sand Canyon Av (I-5 Southbound Ramps to Burt Rd)
- Sand Canyon Av (Burt Rd to Oak Cyn/Laguna Cyn Rd)

Existing-Plus-2012 Modified Project Option 1 ADT Volumes



West Study Area



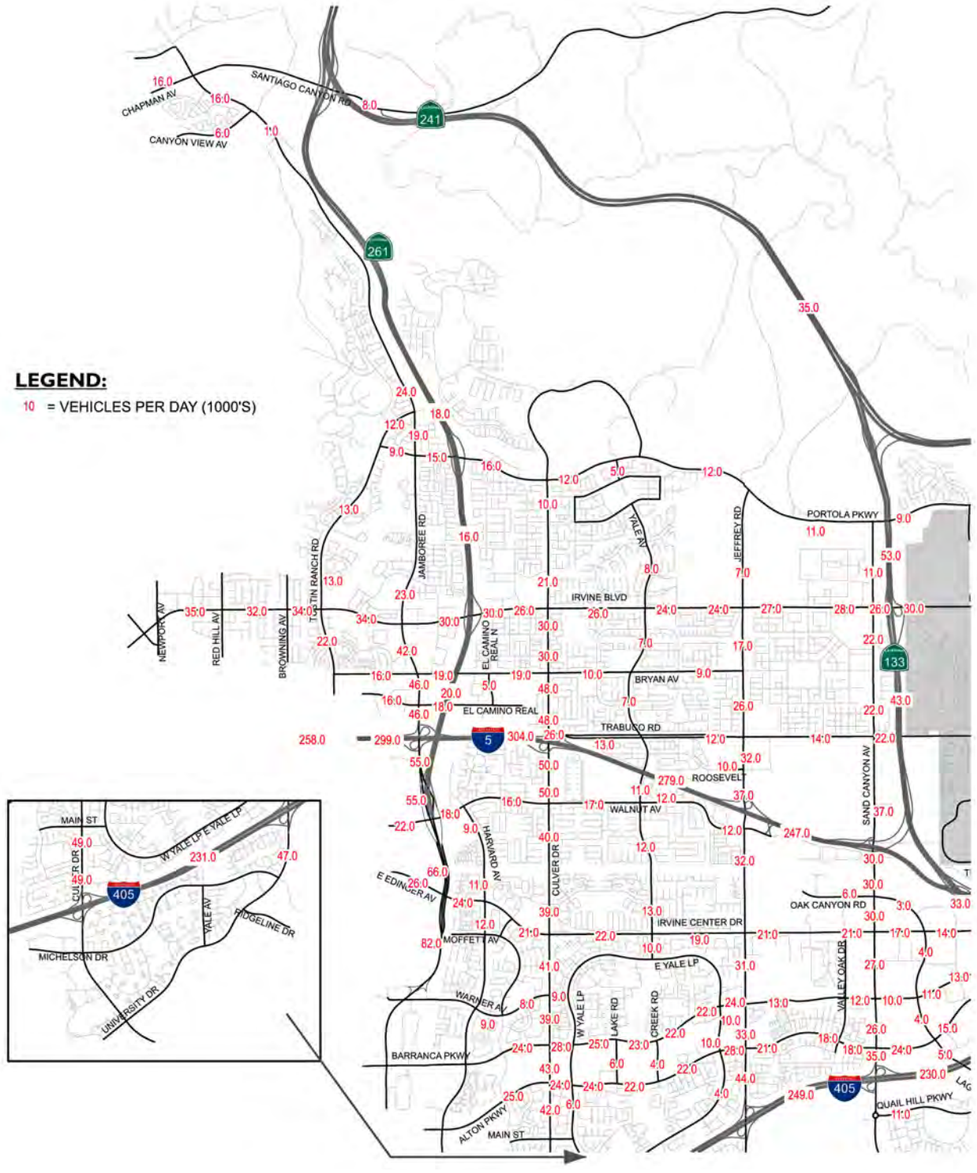
East Study Area

0 0.5 1
Miles

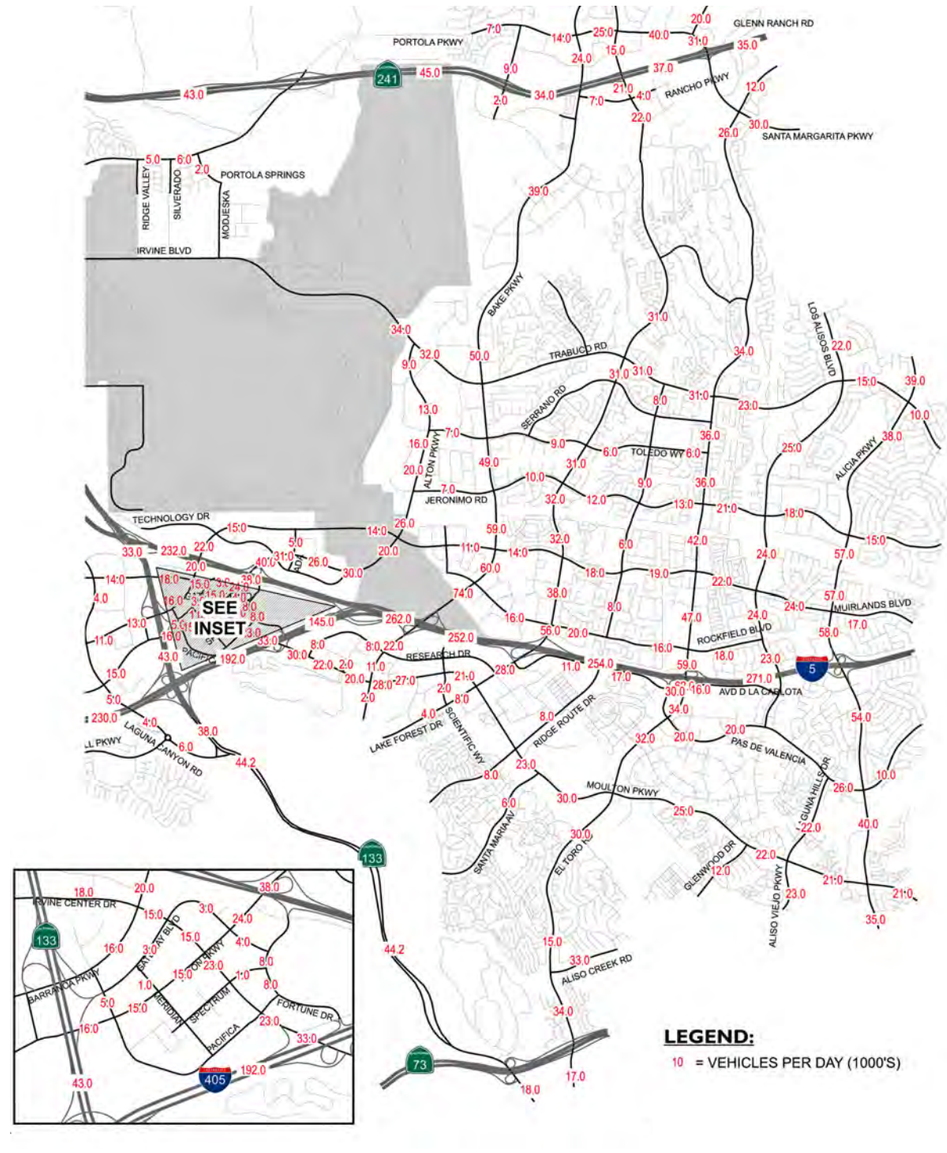
Source: Urban Crossroads 2013

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Existing-Plus-2012 Modified Project Option 2 ADT Volumes



West Study Area



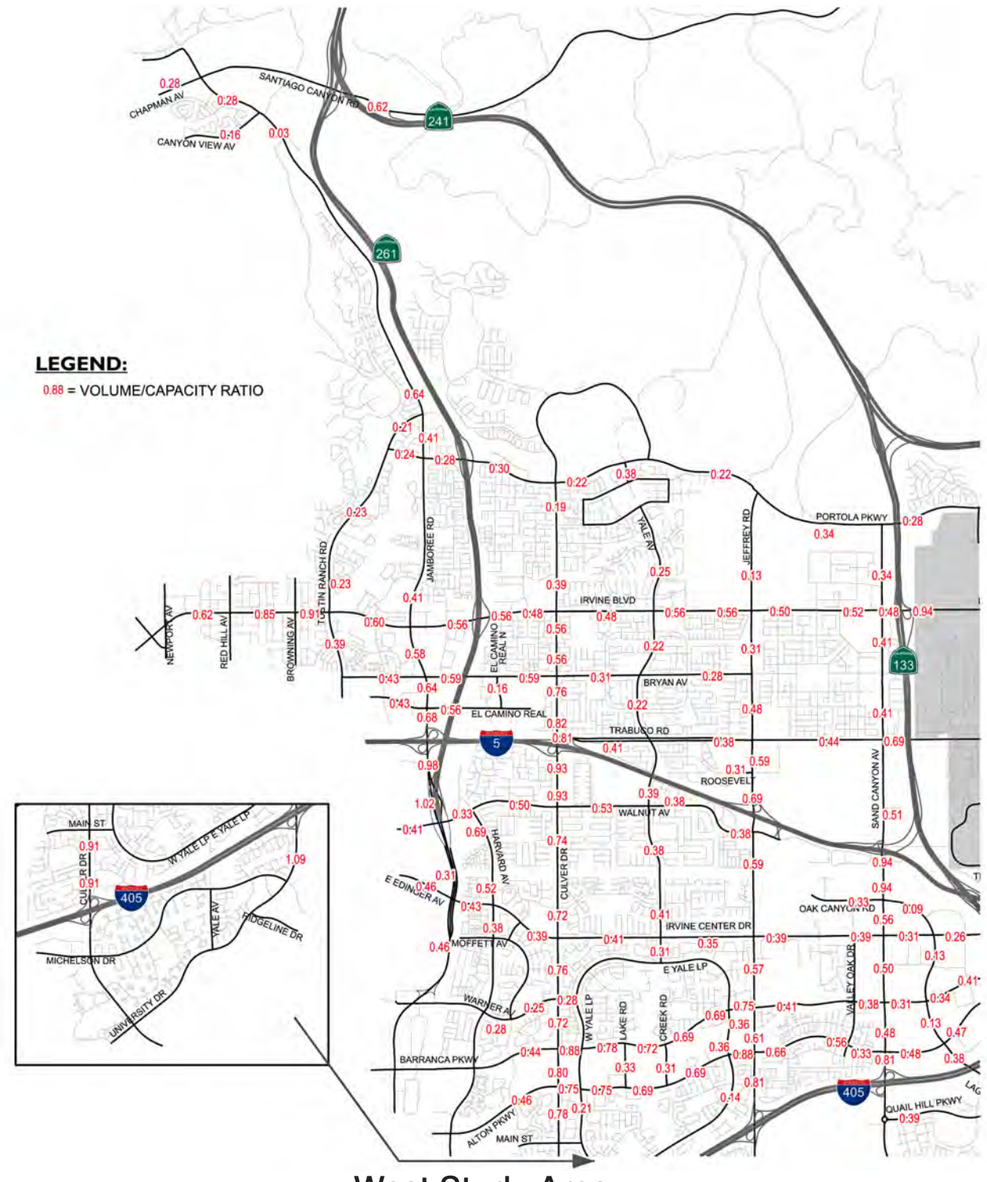
East Study Area

0 0.5 1 Miles

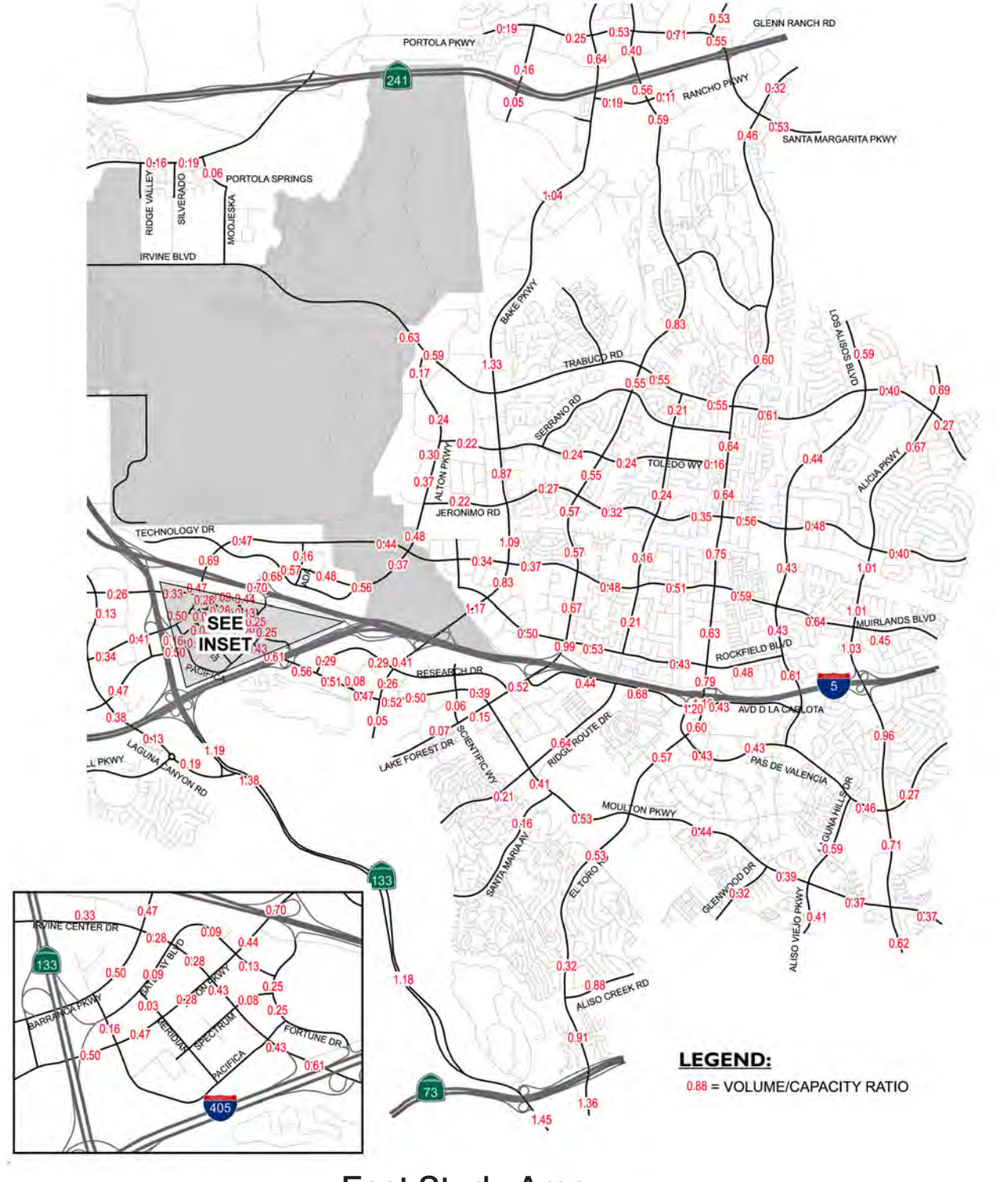
Source: Urban Crossroads 2013

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Existing-Plus-2012 Modified Project Option 1 ADT V/C Ratios



West Study Area



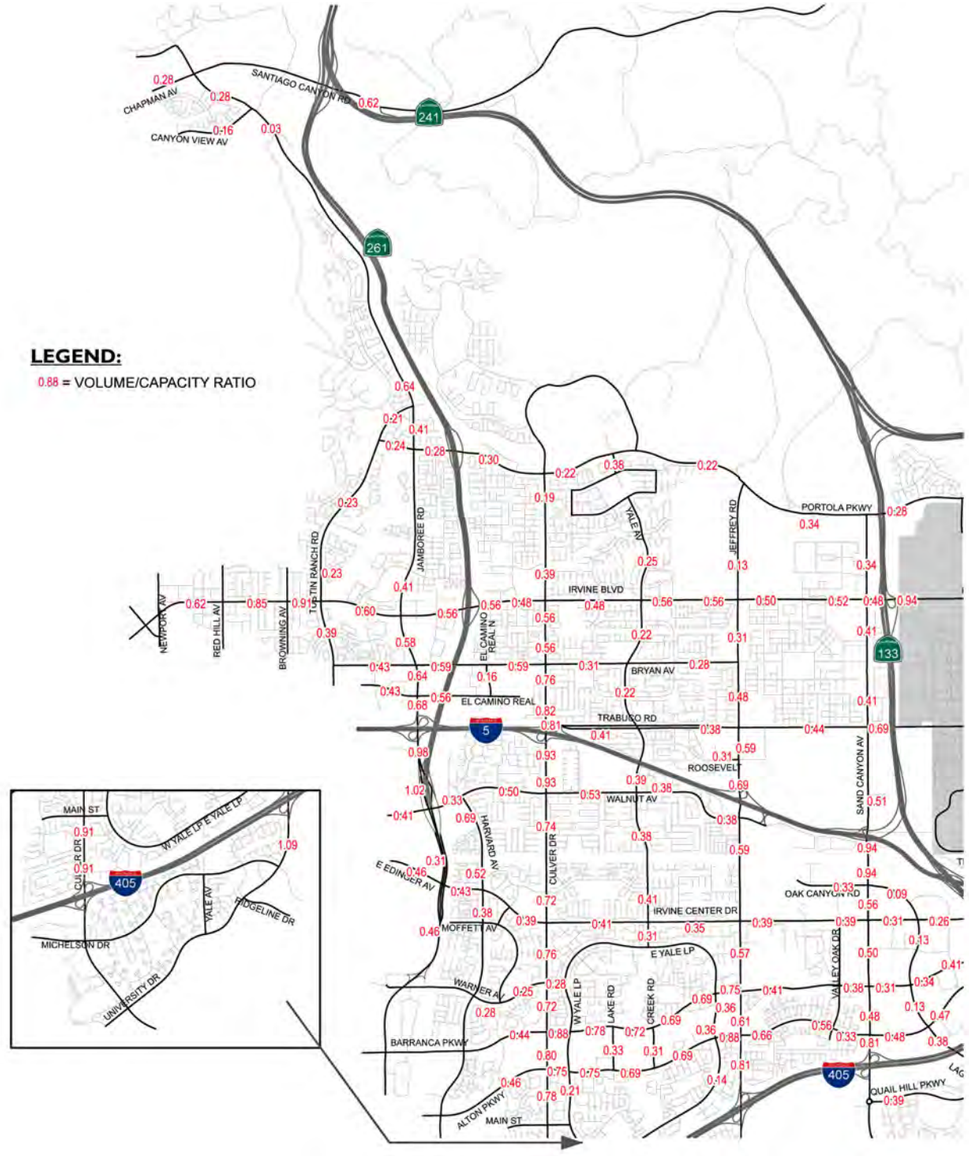
East Study Area

0 0.5 1
Miles

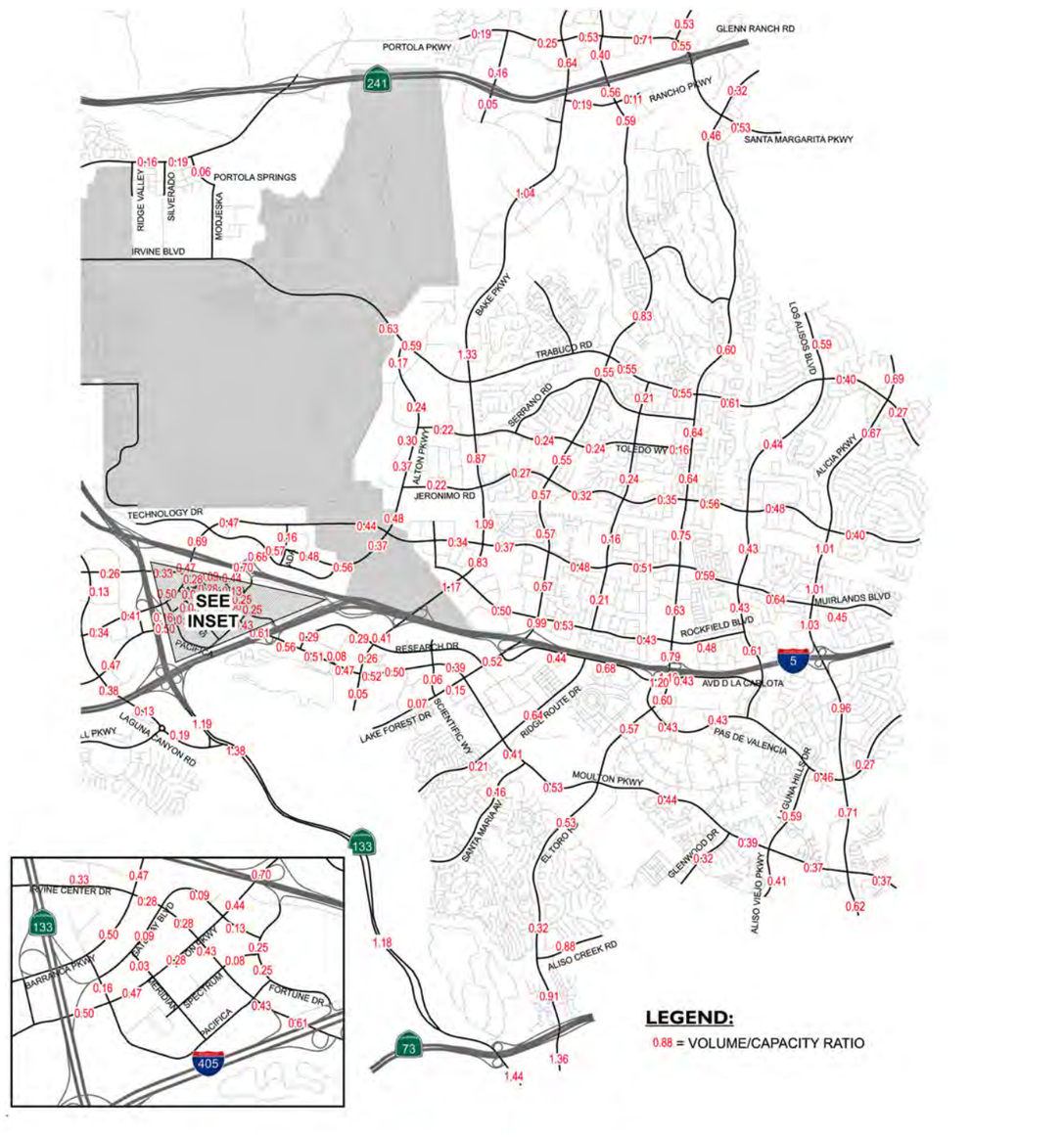
Source: Urban Crossroads 2013

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Existing-Plus-2012 Modified Project Option 2 ADT V/C Ratios



West Study Area



East Study Area

0 0.5 1
Miles

Source: Urban Crossroads 2013

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- University Dr (I-405 SB Ramps to Michelson Dr)
- Culver Dr (Main St to San Leandro)
- Culver Dr (San Leandro to I-5 NB Ramps)

Consistent with the City's traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under existing-plus-project with 2012 Modified Project with Option 1 and Option 2 conditions are summarized in Table 5-1 of the Traffic Study (Appendix I). As the summary table indicates, arterial roadway segments are forecast to operate at acceptable levels of service during peak hours.

Existing-Plus-2012 Modified Project Peak Hour Intersection LOS

Based on the peak hour intersection performance criteria and impact thresholds discussed previously, the following intersection as shown in Table 5.12-5 exceeds adopted impact thresholds with the hypothetical existing-plus-project scenarios:

Table 5.12-5
Existing-Plus-Project Intersection ICU LOS With 2012 Modified Project
Project Impact Location – Options 1 and 2

Intersection		Peak Hour	Without Project		With Project	
			ICU	LOS	ICU	LOS
Culver and University	Option 1	PM	0.90	D	0.91	E
	Option 2	PM	0.90	D	0.92	E

Source: Urban Crossroads, 2012.

A summary of Existing-Plus-2012 Modified Project ICU LOS for all study-area intersections with the 2012 Modified Project for Options 1 and 2 is included in Table 5-2 of the Traffic Study. To address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the 2012 Modified Project, the freeway ramp intersections at Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard interchanges have been analyzed using the Highway Capacity Manual (HCM) methodology in addition to the ICU methodology. The resulting existing and existing-plus-project peak hour levels of service based on the HCM methodology are summarized in Table 5-4 of the Traffic Study. As the summary table indicates, each of the ramp intersections are forecast to operate at an acceptable LOS (i.e., LOS D or better) under existing-plus-project conditions.

In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection. The analysis indicates, none of the vehicle queue lengths exceed the physical length of the off-ramps, and therefore traffic exiting at the I-5 at Sand Canyon Avenue off-ramps is not expected to back up onto the I-5 mainline under existing-plus-project conditions. The on-

ramps at the Sand Canyon Avenue/I-5 interchanges are metered with queue detectors installed, and the timing of the ramp meters will continue to be coordinated by Caltrans and the City to ensure that on-ramp traffic does not back up through Caltrans ramp intersections onto City arterial roadways.

Existing-Plus-2012 Modified Project Peak Hour Freeway/Tollway Ramp LOS

Existing-Plus-2012 Modified Project (for Option 1 and Option 2) AM and PM peak hour ramp volumes and V/C ratios are shown in Table 5-6 of the Traffic Study (Appendix I). Based on the peak hour ramp performance criteria and impact thresholds previously discussed, one freeway ramp is forecast to exceed adopted impact thresholds under the Existing-Plus-2012 Modified Project (e.g., greater than or equal to 0.02, except at CMP locations outside Irvine where it is greater than 0.03) conditions:

- SR-133 Northbound loop on ramp at Barranca Parkway

Existing Plus Project Peak Hour Freeway/Tollway Mainline LOS

Existing-Plus-2012 Modified Project (for Options 1 and 2) AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are shown in Table 5-7 of the Traffic Study (Appendix I) None of the freeway mainline segments are forecasted to exceed adopted impact thresholds under the Existing-Plus-2012 Modified Project conditions.

Existing Plus Project Intersection Impact Location (ICU Methodology)

~~For the Culver Drive & University Drive intersection impact, the fully funded NITM improvement of converting the northbound de facto right turn lane to dual right turn lanes addresses the hypothetical existing plus project intersection peak hour impact~~ One intersection is potentially impacted by the hypothetical Existing-Plus-2012 Modified Project scenario (Culver Drive & University Drive). At this intersection, improvements are already identified in the NITM program and the University of California, Irvine Long Range Development Plan. Traffic projections for all future scenarios with these improvements result in acceptable levels of service (see results in Table 5.12-6 below).

Table 5.12-6
Existing-Plus-Project Intersection ICU LOS With 2012 Modified Project
Project Impact Location – Options 1 and 2

Intersection		Peak Hour	Without Project		With Project		With Project and Programmed Improvement	
			ICU	LOS	ICU	LOS	ICU	LOS
Culver and University	Option 1	PM	0.90	D	0.91	E	0.82	D
	Option 2	PM	0.90	D	0.92	E	0.82	D

Source: Urban Crossroads, 2012.

Existing-Plus-2012 Modified Project Freeway Ramp Impact Location

Conditions under the Existing-Plus-2012 Modified Project scenario exceed adopted impact thresholds at one freeway interchange:

- SR-133 ~~n~~Northbound loop on-ramp at Barranca Parkway

~~This ramp improvement will be funded on a NITM methodology fair share basis.~~ The improvement that would address this hypothetical existing-plus-project impact scenario is to convert the HOV preferential lane to a second metered mixed-flow lane. ~~With this improvement, the SR-133 northbound loop on-ramp from Barranca Parkway would operate at LOS B with 2012 Modified Project Option 1 or Option 2 (as demonstrated in Table 5-9 of the Traffic Study, provided in Appendix I).~~ The SR-133 northbound loop on-ramp at Barranca Parkway is not impacted under future conditions (cumulative 2015, 2030 and Post-2030 scenarios) and the proposed improvement for this ramp is not a NITM Program improvement. In the event that the pending projects evaluated in the traffic impact analysis are approved, this location is identified as a project impact in the 2012 Modified Project Option 2 scenario and will participate in the implementation of the mitigation improvement on a fair share basis.

5.12.5.3 Interim Year 2015 Traffic Impacts with 2012 Modified Project

The following sub-sections summarize the resulting Year 2015 traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps without and with the 2012 Modified Project Option 1 and Option 2 scenarios.

Interim Year 2015 Circulation System and Average Daily Traffic Volumes, with 2012 Modified Project Option 1

The Year 2015 with 2012 Modified Project Option 1 average daily traffic (ADT) volumes and corresponding volume/capacity (V/C) ratios are illustrated in Figures 5.12-14 and 5.12-15, respectively.

Based on the ADT and V/C performance criteria and impact thresholds, the following ~~two~~four (~~2~~4) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 1:

- Irvine Bl (west of A-02 St)
- Irvine Bl (east of A-02 St)
- Jeffrey Rd (south of Roosevelt)
- Trabuco Rd (east of Culver Dr)

Consistent with the City's traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Year 2015 conditions 2012 Modified Project Option 1 are summarized in Table 6-1 of the Traffic Study (Appendix I). As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed the adopted thresholds.

Interim Year 2015 Peak Hour Intersection Levels of Service with 2012 Modified Project Option 1

For the 2012 Modified Project Option 1, Year 2015 AM and PM peak hour ICU results for the intersections illustrated in Figure 5.12-16 that are part of the study area are summarized in Table 6-2 of the Traffic Study. Actual turn volumes, lane geometrics and ICU calculation worksheets for the this scenario are included in Appendix 6.2 of the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, none of the intersections are forecast to exceed adopted impact thresholds with the 2012 Modified Project Option 1 based on Year 2015 conditions.

As previously stated, to address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard interchanges have been analyzed using the HCM methodology in addition to the ICU methodology. The resulting Year 2015 Without Project and Year 2015 2012 Modified Project peak hour levels of service based on the HCM methodology are summarized in Table 6-3 of the Traffic Study (HCM intersection LOS calculation worksheets are included in Appendix 6.3 of the Traffic Study). As the summary table indicates, each of the ramp intersections are forecast to operate at an acceptable LOS (i.e., LOS D or better) under the Year 2015 for the 2012 Modified Project Option 1 conditions.

In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 freeway ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection (see Table 6-6 of the Traffic Study). Table 6-4 of the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Year 2015 peak hour conditions for the 2012 Modified Project Option 1 (HCM queuing analysis calculation worksheets are included in Appendix 6.4 of the Traffic Study). As the summary table indicates, none of the vehicle queue lengths exceed the physical length of the off-ramps, and therefore traffic exiting at the I-5 at Sand Canyon Avenue off-ramps is not expected to back up onto the I-5 mainline under this condition. The on-ramps at the Sand Canyon Avenue/I-5 interchanges are metered with queue detectors installed, and the timing of the ramp meters will continue to be coordinated by Caltrans and the City.

Interim Year 2015 Peak Hour Freeway/Tollway Ramp Levels of Service, with 2012 Modified Project Option 1

Figure 5.12-17 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Year 2015 conditions. Year 2015 Without Project and Year 2015 with the 2012 Modified Project Option 1 AM and PM peak hour freeway/tollway ramp volumes and V/C ratios are summarized in Table 6-5 of the Traffic Study. Based on the peak hour freeway/tollway ramp performance criteria and impact thresholds presented earlier in this section, none of the freeway ramps are forecasted to exceed the adopted impact thresholds (e.g., greater than or equal to 0.02, except at CMP locations outside Irvine where it is greater than 0.03) under Year 2015 for the 2012 Modified Project Option 1 conditions.

Year 2015 ADT Volumes with 2012 Modified Project Option 1 (1 of 2)



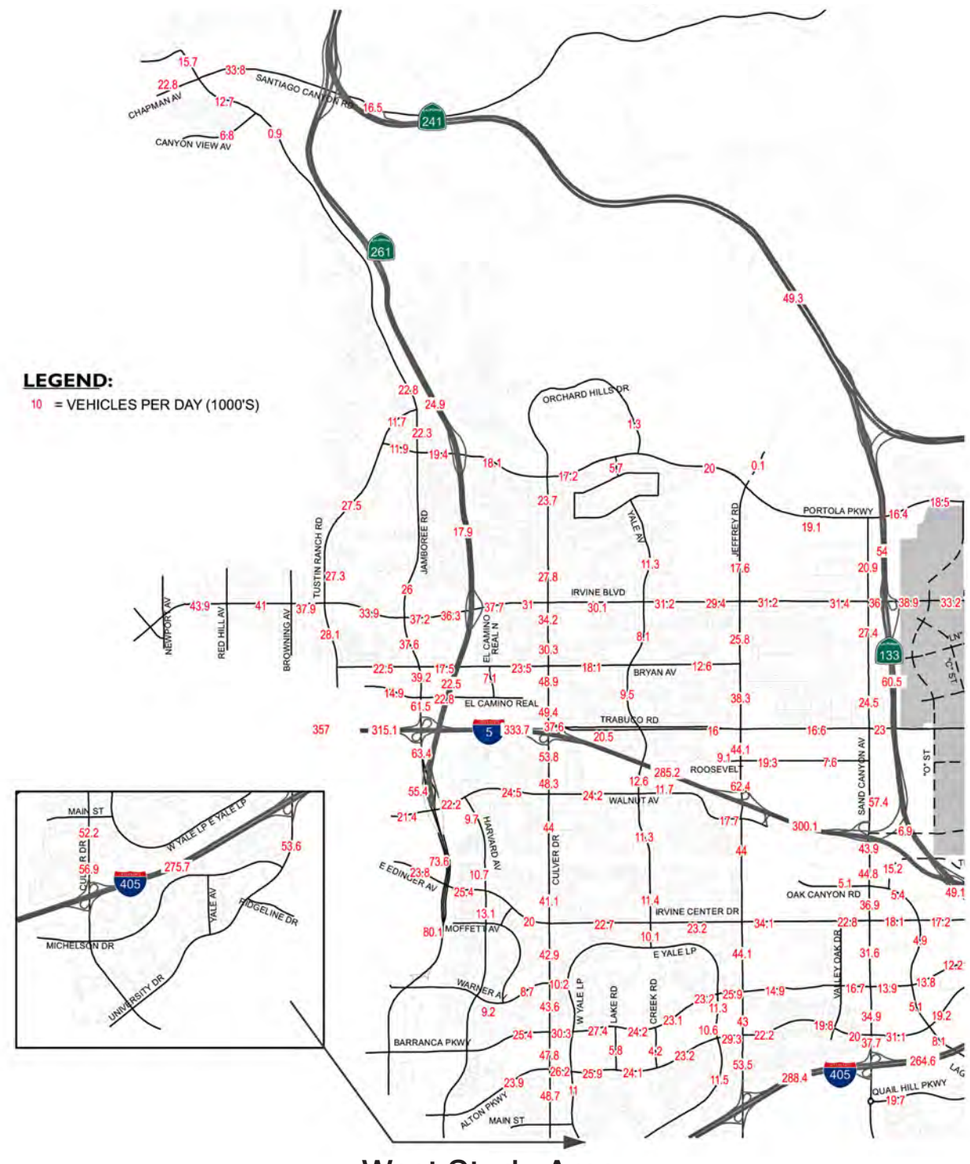
Project Area

Source: Urban Crossroads 2013

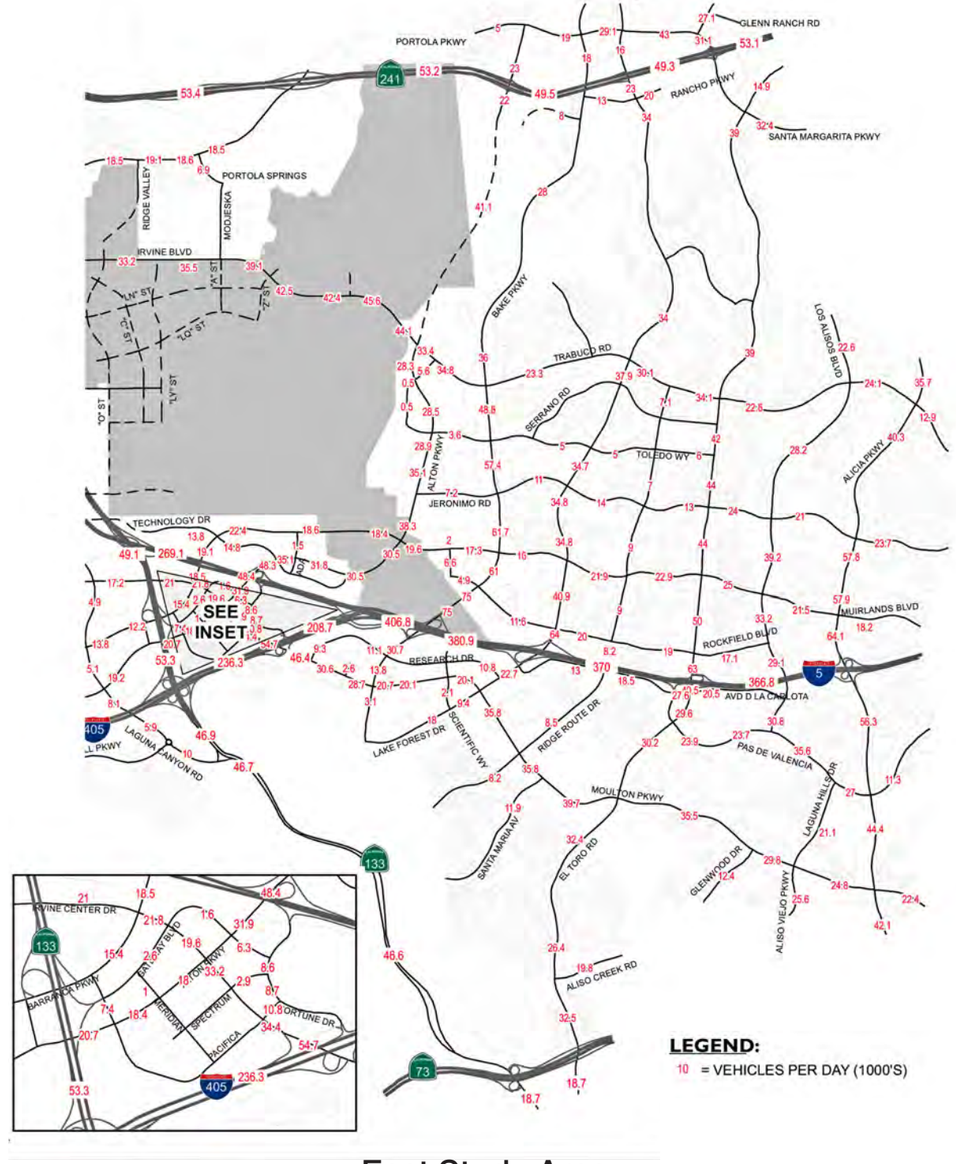
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Scale (Feet)

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Year 2015 ADT Volumes with 2012 Modified Project Option 1 (2 of 2)



West Study Area



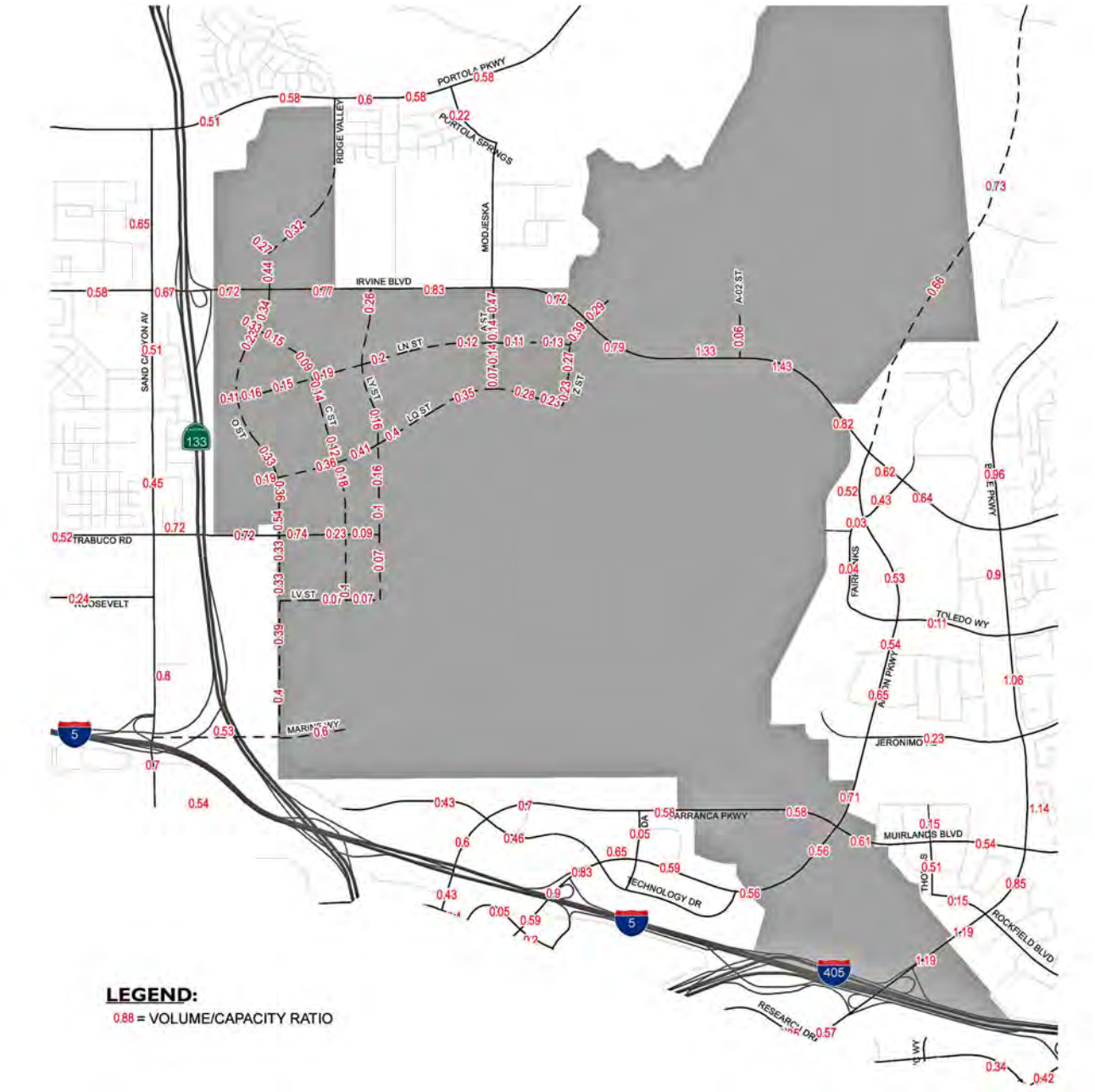
East Study Area

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Miles

Source: Urban Crossroads 2013

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Year 2015 ADT V/C Ratios with 2012 Modified Project Option 1 (1 of 2)



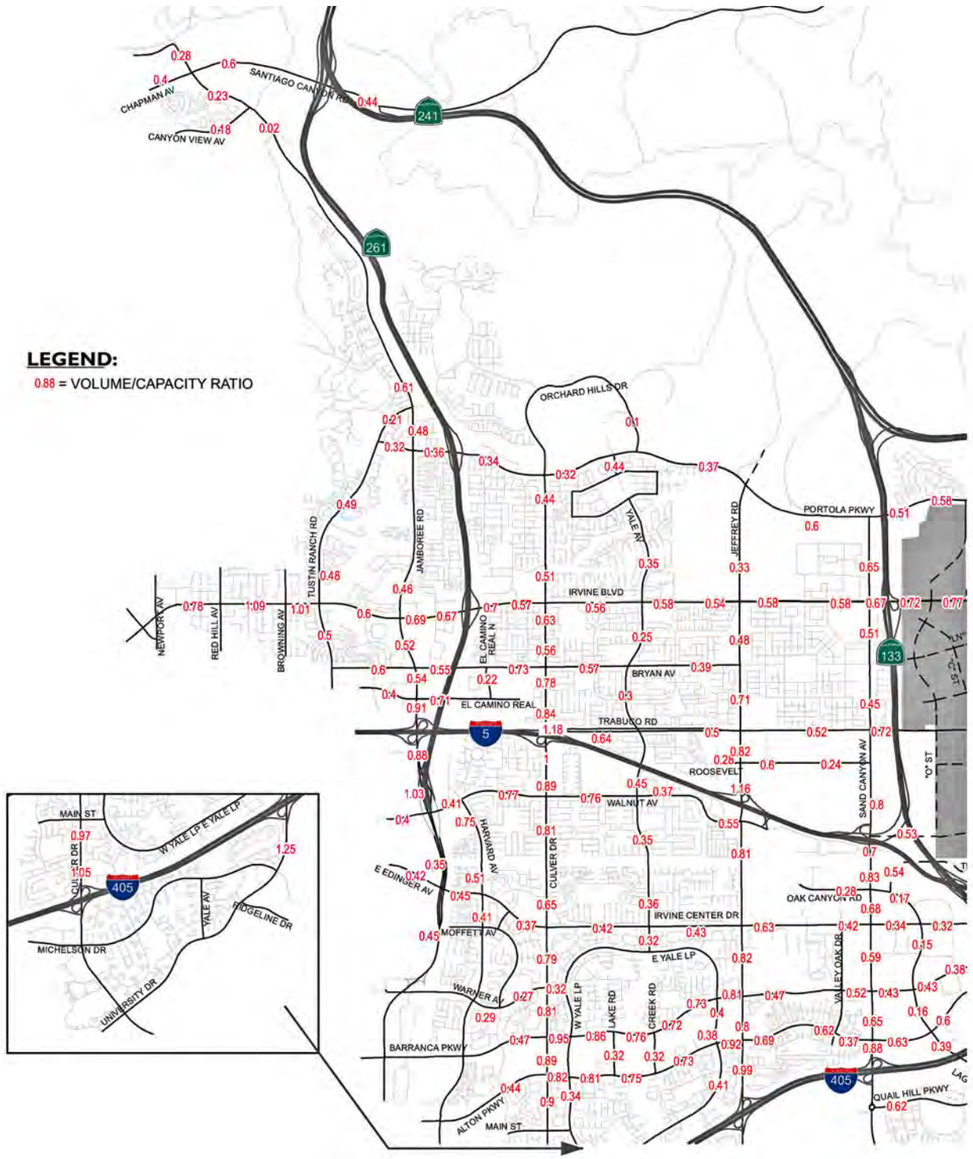
Project Area

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Scale (Feet)

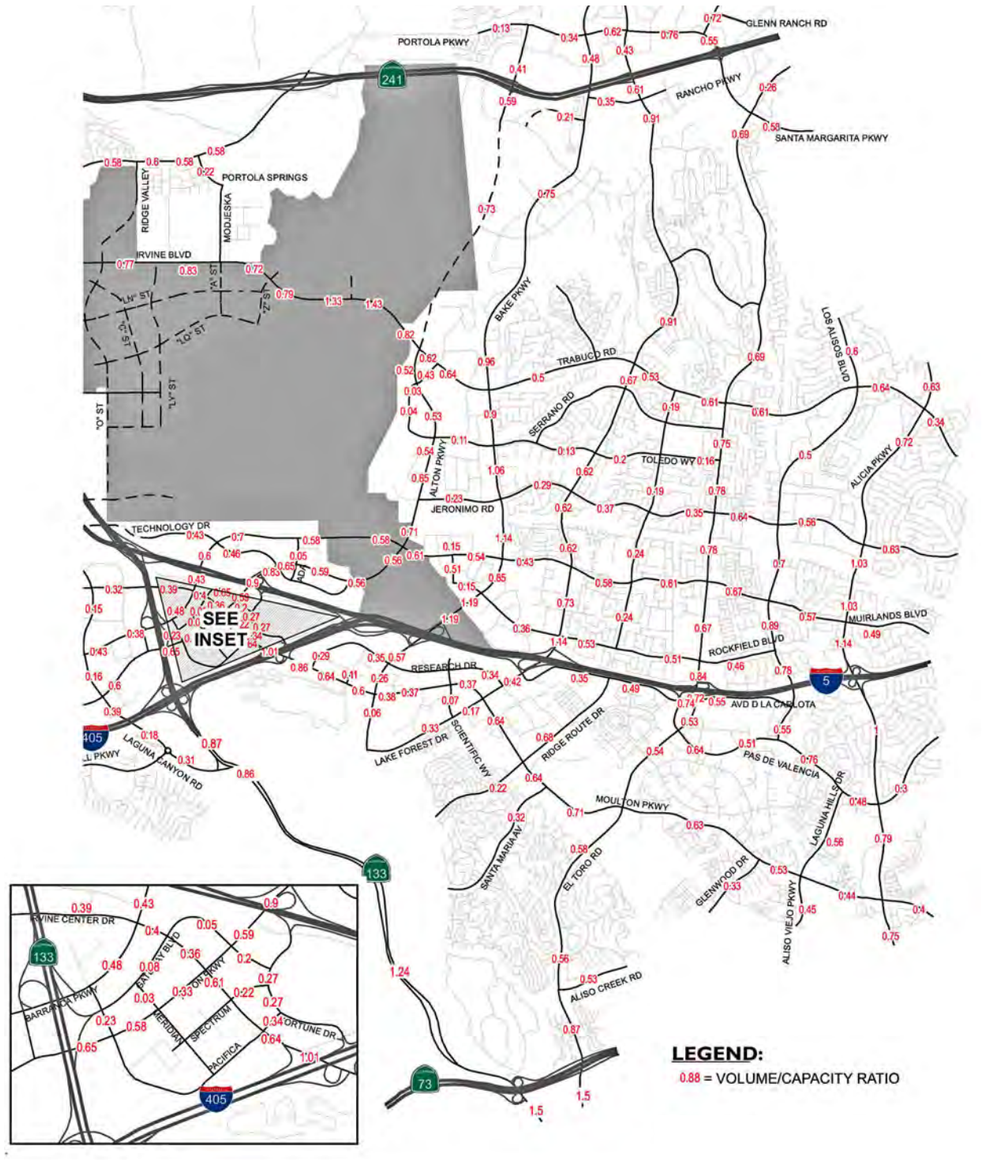
Source: Urban Crossroads 2013

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Year 2015 ADT V/C Ratios with 2012 Modified Project Option 1 (2 of 2)



West Study Area



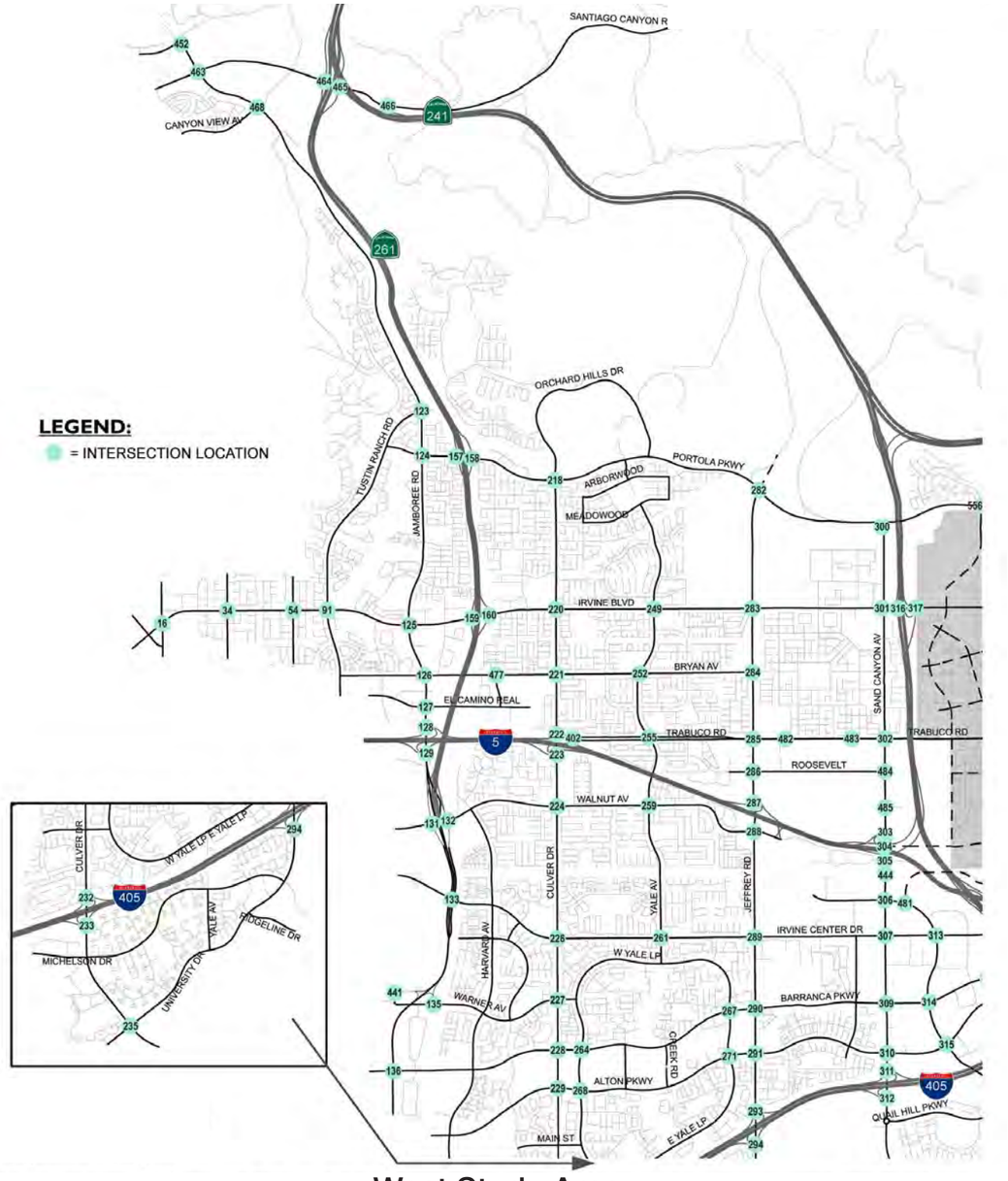
East Study Area

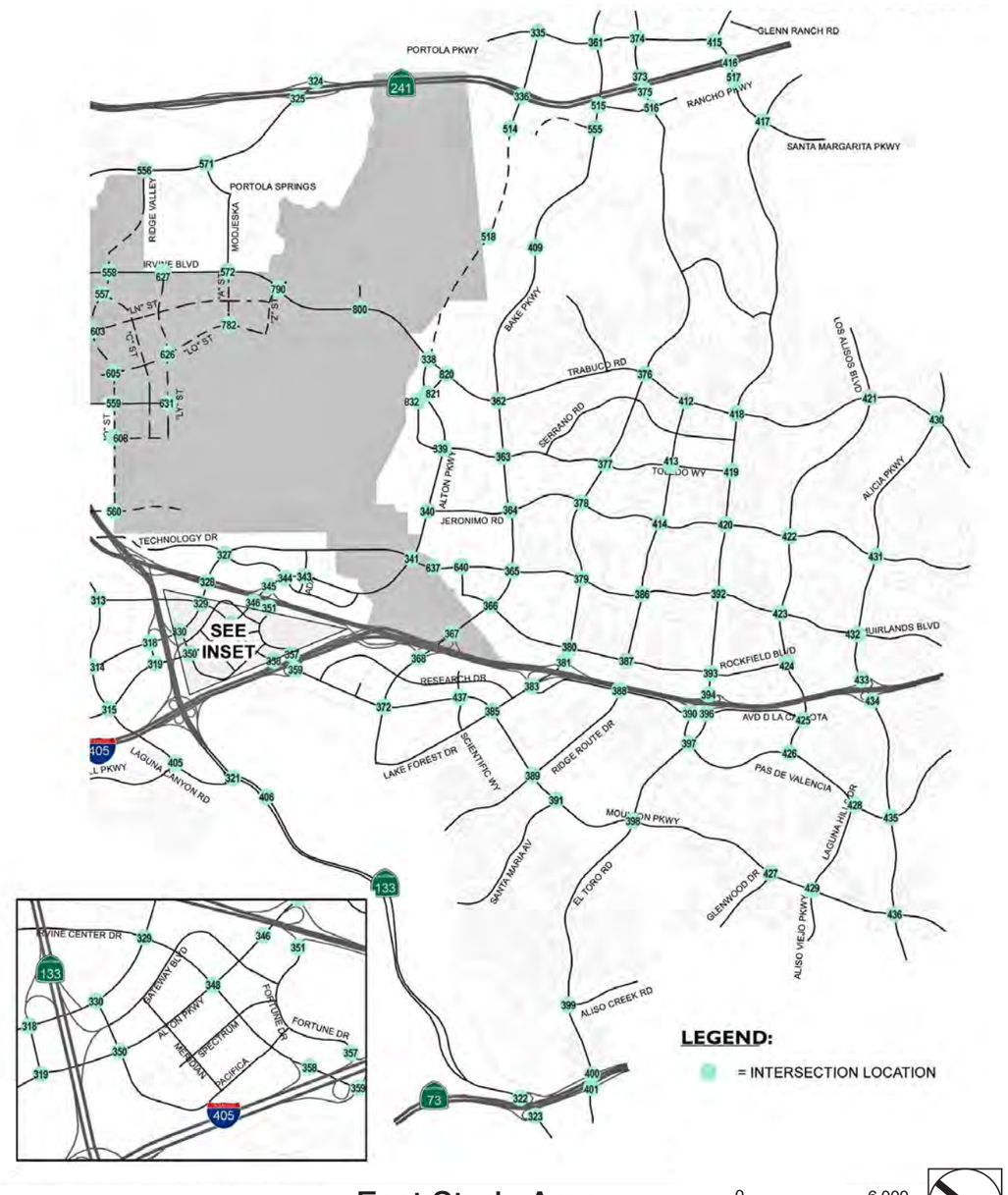
0 0.5 1
Miles

Source: Urban Crossroads 2013

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Year 2015 Intersection Location Map





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Scale (Feet)

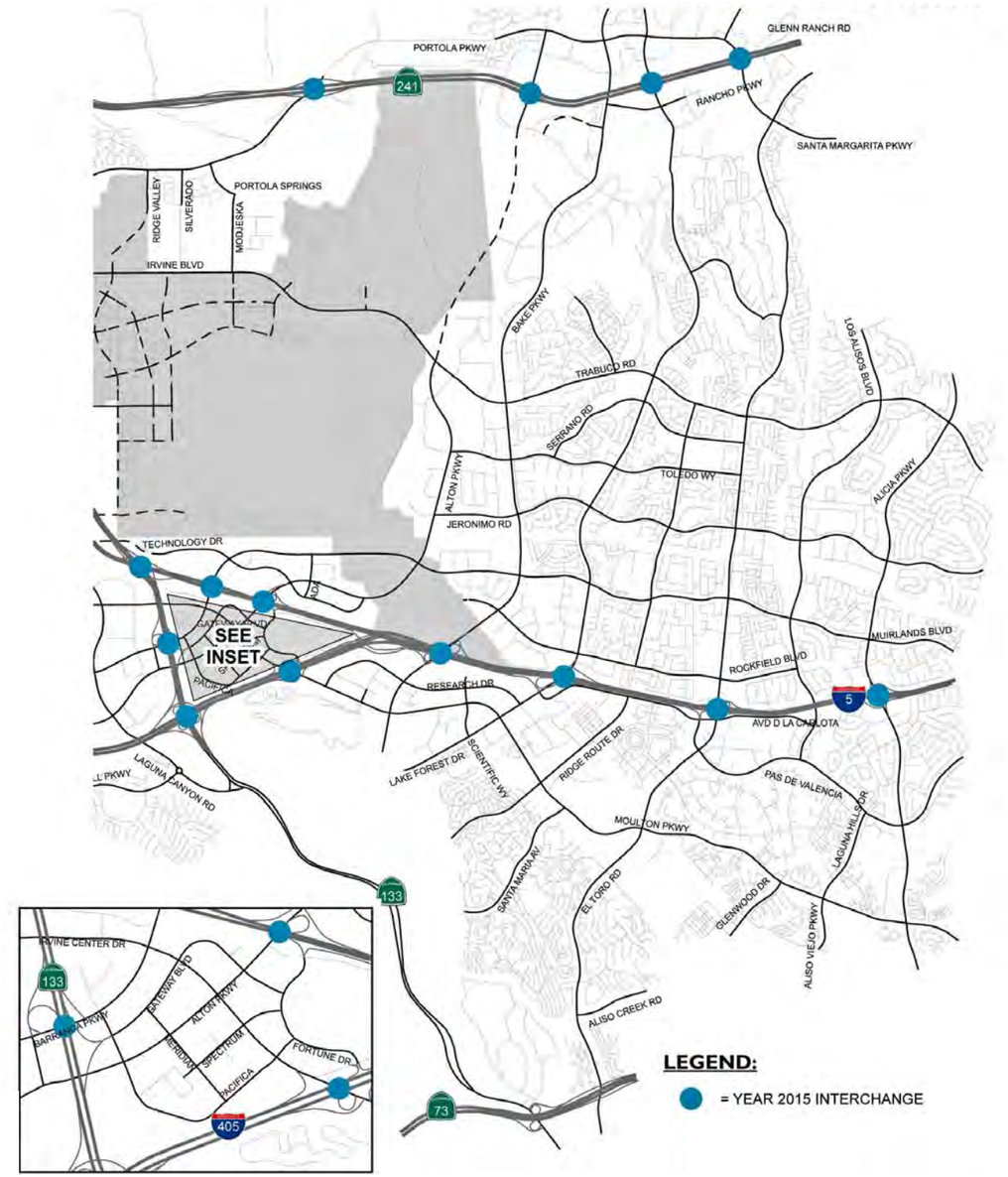
Source: Urban Crossroads 2013

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Year 2015 Freeway Interchange Locations



West Study Area



East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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Interim Year 2015 Peak Hour Freeway/Tollway Mainline Levels of Service, with 2012 Modified Project Option 1

Year 2015 Without Project and 2015 with the 2012 Modified Project Option 1 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 6-6 of the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds, none of the freeway mainline segments are forecasted to exceed adopted impact thresholds (e.g., greater than 0.03) under Year 2015 with 2012 Modified Project Option 1 conditions.

Interim Year 2015 Circulation System and Average Daily Traffic Volumes, with 2012 Modified Project Option 2

The Year 2015 ADT volumes and the corresponding V/C ratios for the 2012 Modified Project Option 2 are illustrated in Figures 5.12-18, and Figures 5.12-19, respectively.

Based on the ADT and V/C performance criteria and impact thresholds, the following ~~two~~three (~~2~~3) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 2:

- Irvine Bl (west of A-02 St)
- Irvine Bl (east of A-02 St)
- Trabuco Rd (east of Culver Dr)

Consistent with the City's traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Year 2015 conditions 2012 Modified Project Option 2 are summarized in Table 6-7 of the Traffic Study. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed the adopted thresholds.

Interim Year 2015 Peak Hour Intersection Levels of Service, with 2012 Modified Project Option 2

For the 2012 Modified Project Option 2, Year 2015 AM and PM peak hour ICU results for the intersections illustrated in previous Figure 5.12-16 that are part of the study area are summarized in Table 6-8 in the Traffic Study. Actual turn volumes, lane geometrics and ICU calculation worksheets for the this scenario are included in Appendix 6.5 of the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, none of the intersections are forecast to exceed adopted impact thresholds with 2012 Modified Project Option 2 based on Year 2015 conditions.

As previously stated, to address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard interchanges have been analyzed using the HCM methodology in addition to the ICU methodology. The resulting Year 2015 Without Project and Year 2015 2012 Modified Project peak hour levels of service based on the HCM methodology are summarized in Table 6-9 of the Traffic Study (HCM intersection LOS calculation worksheets are included in Appendix 6.6 of the Traffic Study). As the summary table indicates, each of the ramp intersections are forecast to operate at an acceptable LOS (i.e., LOS D or better) under the Year 2015 for the 2012 Modified Project Option 2 conditions.

In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 freeway ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5 and SR-133/Irvine Boulevard ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection (see Table 6-10 of the Traffic Study). Table 6-4 of the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Year 2015 peak hour conditions for the 2012 Modified Project Option 2 (HCM queuing analysis calculation worksheets are included in Appendix 6.7 of the Traffic Study). As the summary table indicates, none of the vehicle queue lengths exceed the physical length of the off-ramps, and therefore traffic exiting at the I-5 at Sand Canyon Avenue off-ramps is not expected to back up onto the I-5 mainline under this condition. The on-ramps at the Sand Canyon Avenue/I-5 interchanges are metered with queue detectors installed, and the timing of the ramp meters will continue to be coordinated by Caltrans and the City.

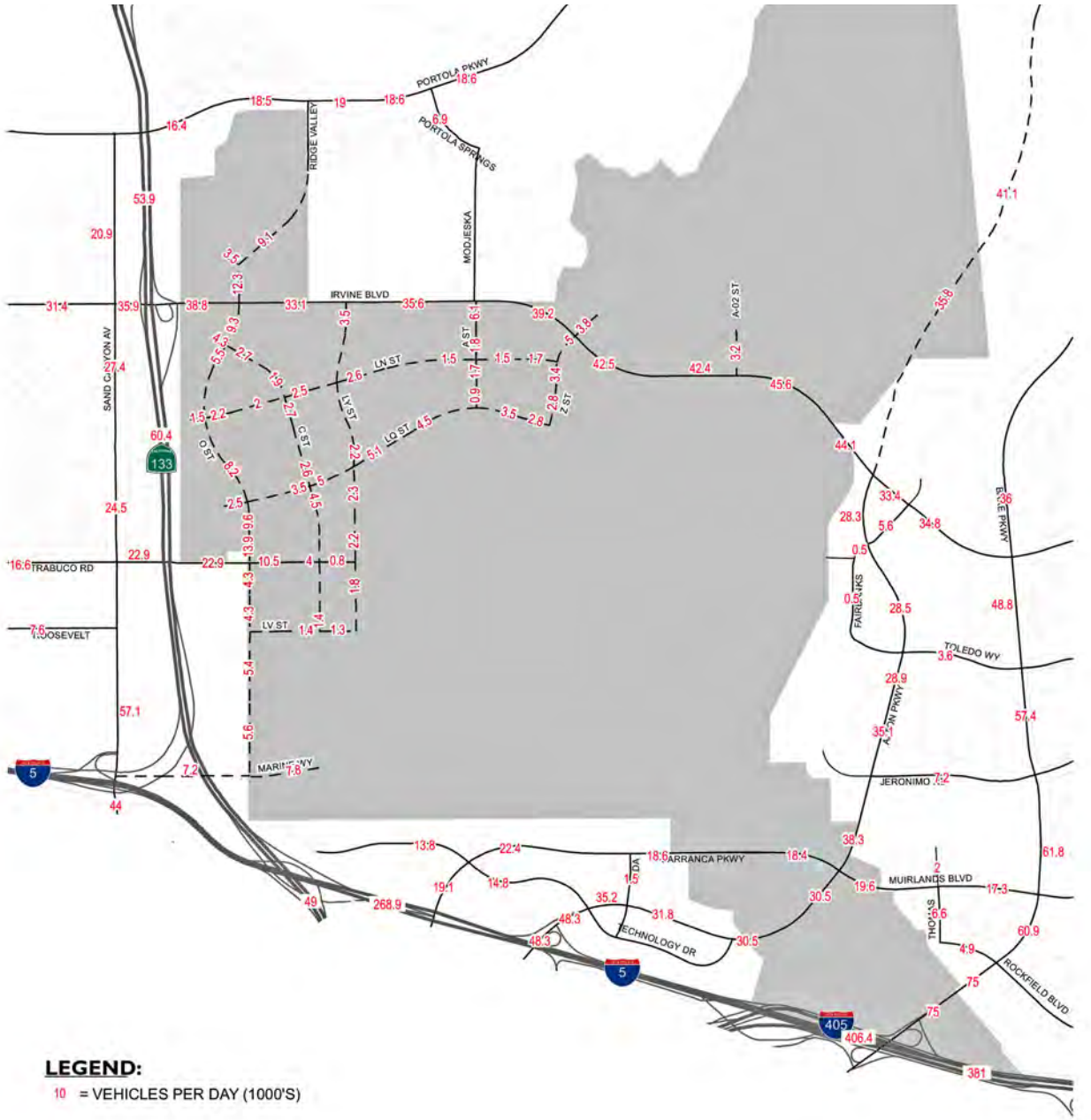
Interim Year 2015 Peak Hour Freeway/Tollway Ramp Levels of Service, with 2012 Modified Project Option 2

Figure 5.12-17 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Year 2015 conditions. Year 2015 Without Project and Year 2015 with the 2012 Modified Project Option 2 AM and PM peak hour freeway/tollway ramp volumes and V/C ratios are summarized in Table 6-11 of the Traffic Study. Based on the peak hour freeway/tollway ramp performance criteria and impact thresholds presented earlier in this section, none of the freeway ramps are forecasted to exceed the adopted impact thresholds (e.g., greater than or equal to 0.02, except at CMP locations outside Irvine where it is greater than 0.03) under Year 2015 for the 2012 Modified Project Option 2 conditions.

Interim Year 2015 Peak Hour Freeway/Tollway Mainline Levels of Service, with 2012 Modified Project Option 2

Year 2015 Without Project and 2015 with the 2012 Modified Project Option 2 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 6-12 of the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds, none of the freeway mainline segments are forecasted to exceed adopted impact thresholds (e.g., greater than 0.03) under Year 2015 for the 2012 Modified Project Option 2 conditions.

Year 2015 ADT Volumes with 2012 Modified Project Option 2 (1 of 2)



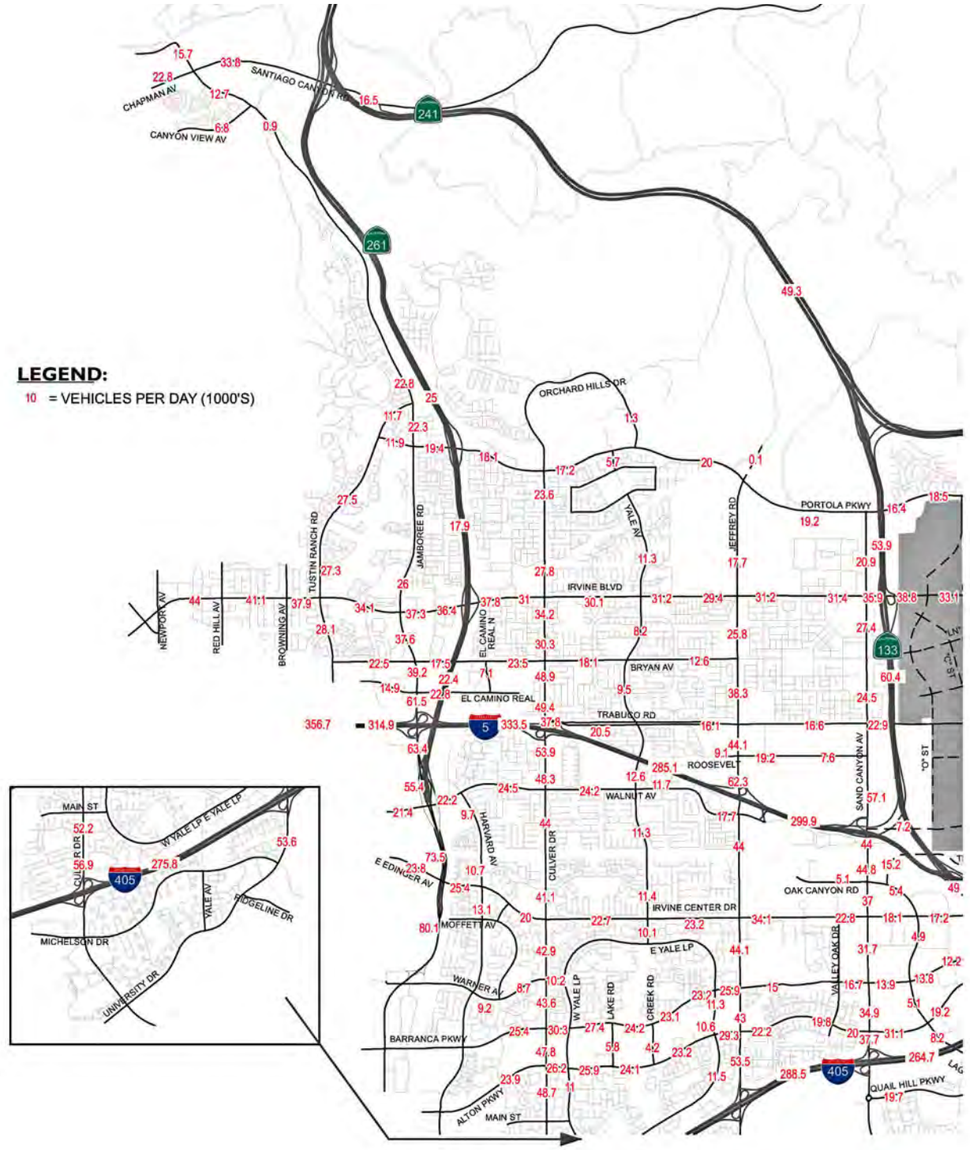
Project Area

0 1,500 3,000
Scale (Feet)

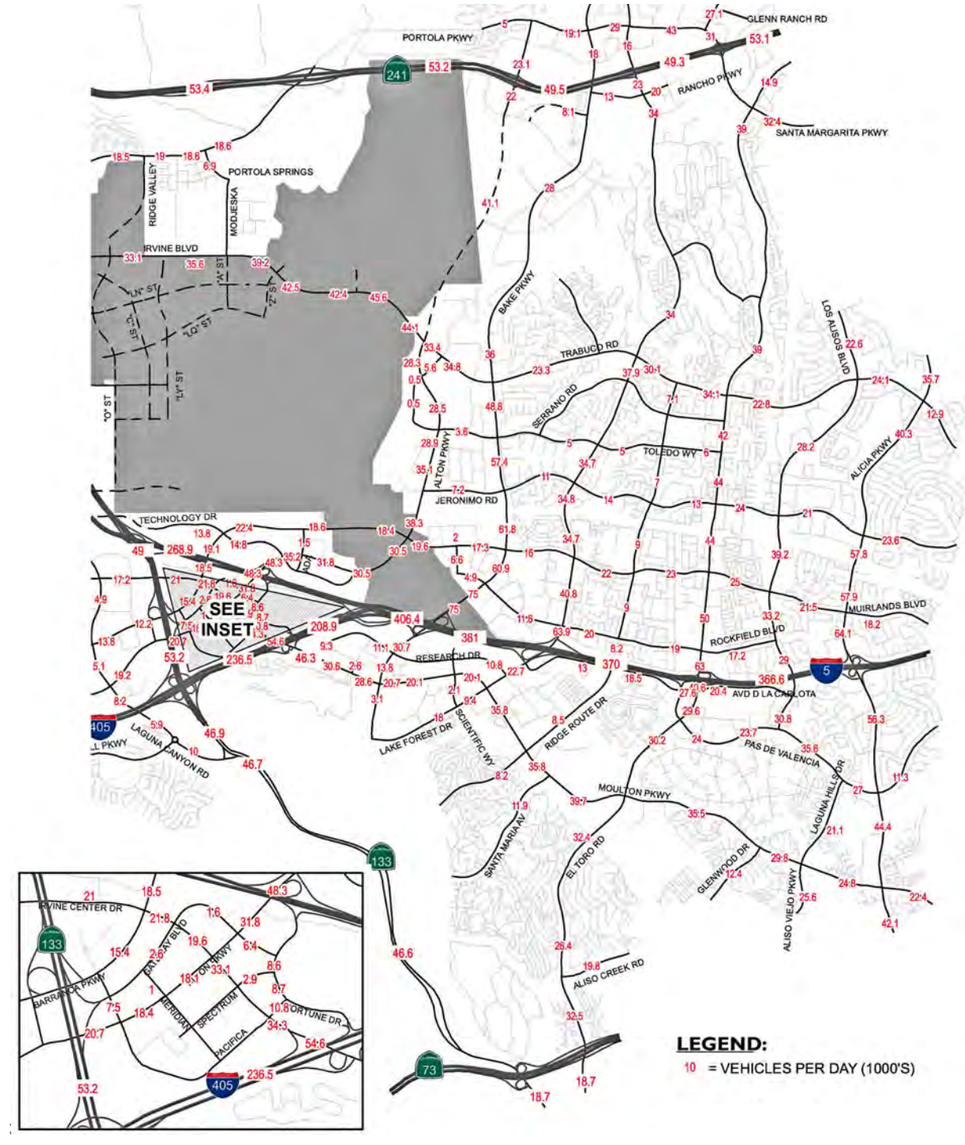
Source: Urban Crossroads 2013

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Year 2015 ADT Volumes with 2012 Modified Project Option 2 (2 of 2)



West Study Area



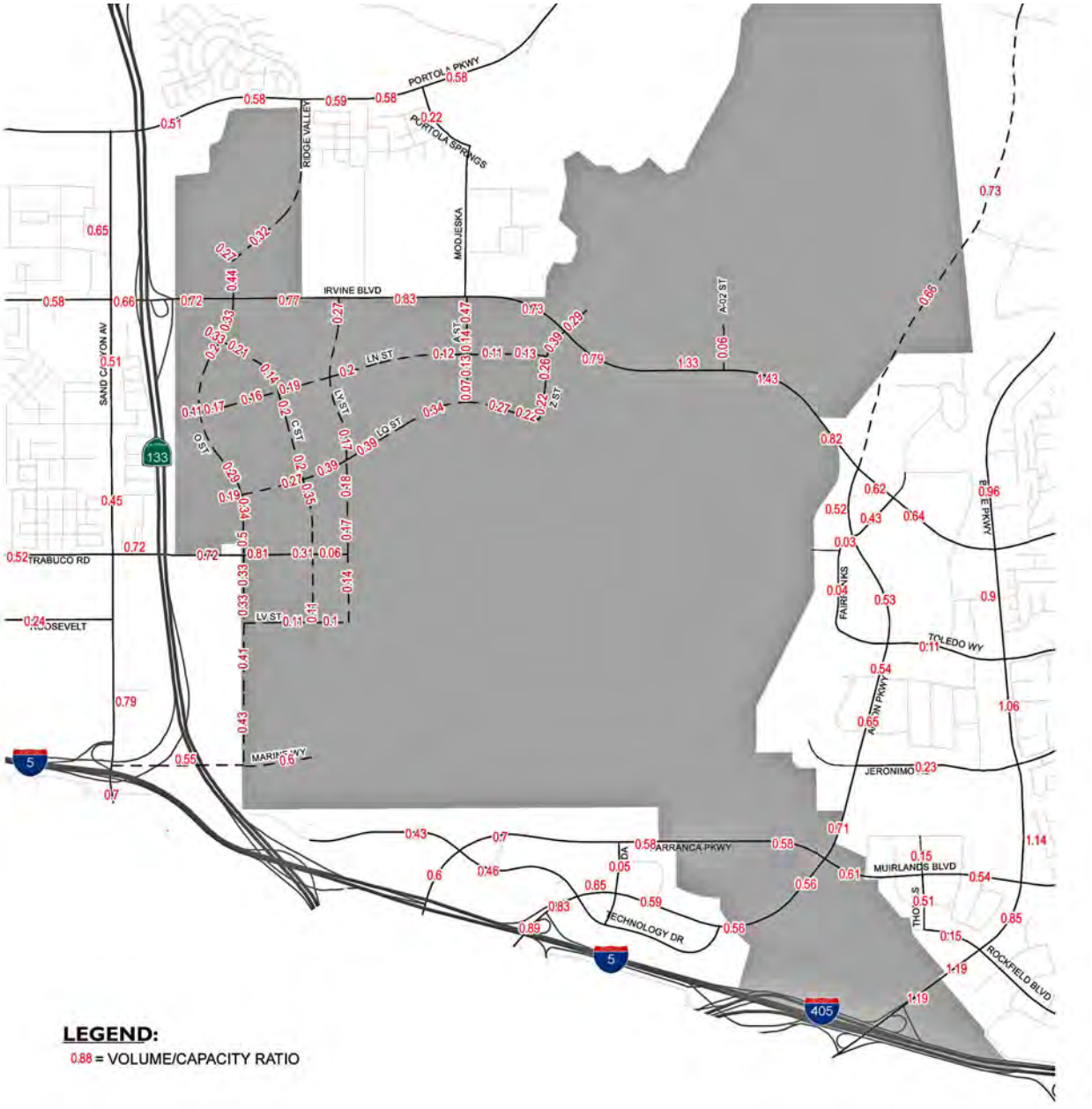
East Study Area

0 0.5 1 Miles

Source: Urban Crossroads 2013

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Year 2015 ADT V/C Ratios with 2012 Modified Project Option 2 (1 of 2)



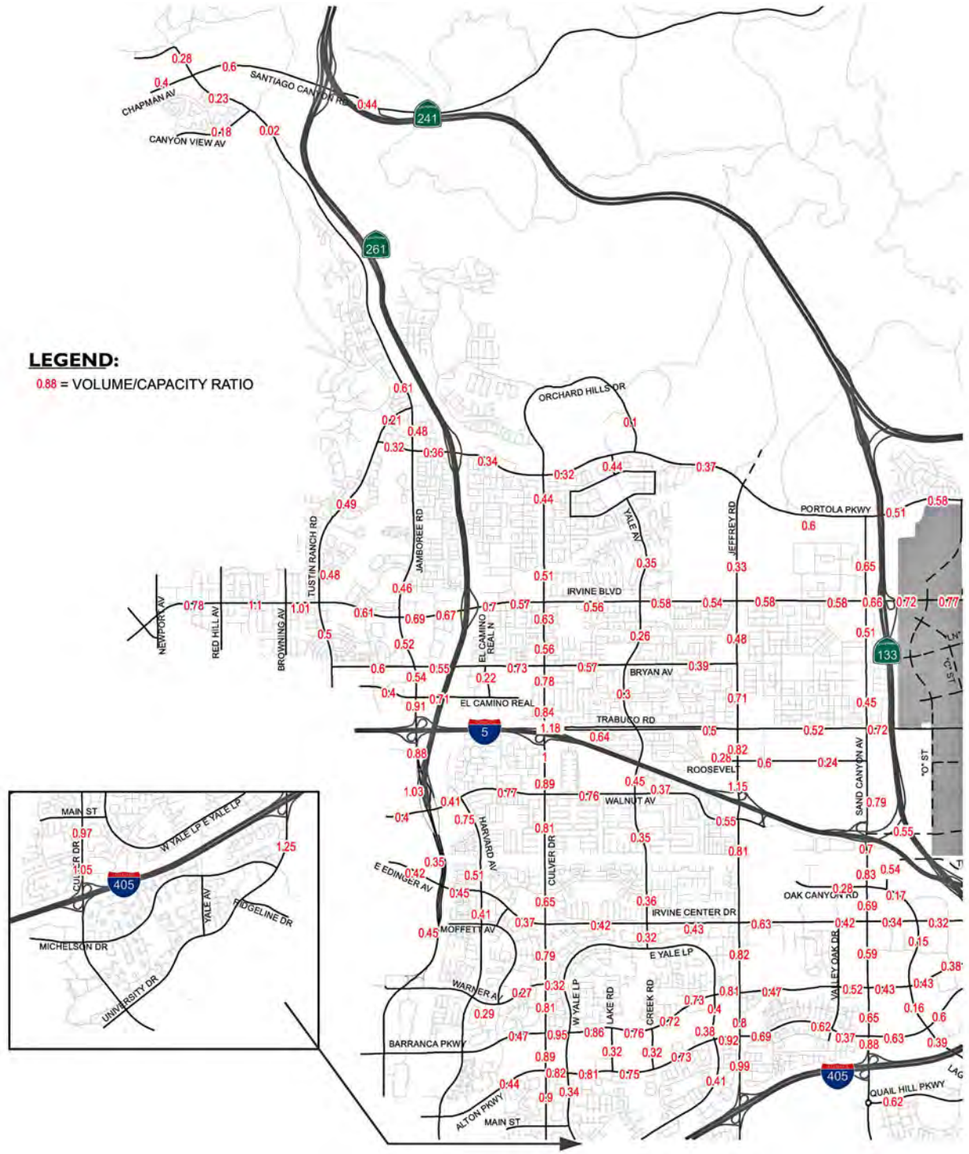
Project Area

0 1,500 3,000
Scale (Feet)

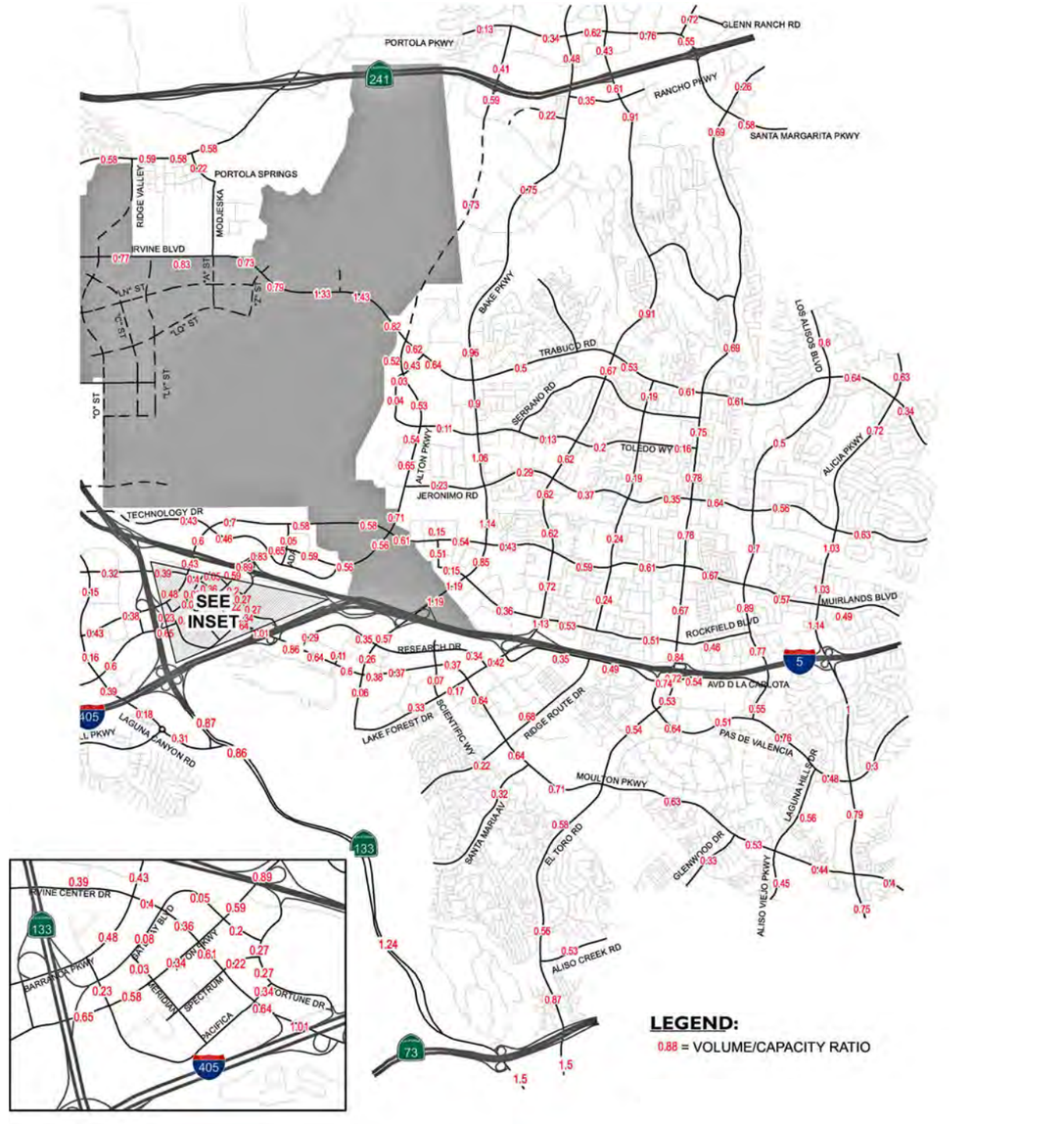
Source: Urban Crossroads 2013

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Year 2015 ADT V/C Ratios with 2012 Modified Project Option 2 (2 of 2)



West Study Area



East Study Area

0 0.5 1
Miles

Source: Urban Crossroads 2013

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5.12.5.4 Year 2030 Analysis with 2012 Modified Project

This section compares the 2030 Without Project to the 2012 Modified Project Option 1 and Option 2 in Year 2030. The baseline for this DSSEIR is the 2011 Approved Project. As discussed previously, ITAM Version 8.4-10 (ITAM 8.4-10) and the Lake Forest Traffic Analysis Model (LFTAM) were used to prepare the traffic forecasts that are applied in the analysis for 2030 conditions. The results of the Year 2030 traffic impact analysis are summarized below for 2012 Modified Project Option 1 and Option 2 scenarios.

Year 2030 Circulation System and Average Daily Traffic Volumes for 2012 Modified Project Option 1

The Year 2030 for 2012 Modified Project Option 1 ADT volumes and the corresponding V/C ratios are illustrated in Figure 5.12-20, and Figure 5.12-21, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed above, the following five (5) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 1:

- Bake Pkwy (b/w Rockfield Bl and Marine Way)
- Irvine Bl (b/w A St and Z St)
- Irvine Bl (b/w Z St and B St)
- ~~Jeffrey Rd (b/w Roosevelt and I-5 NB Ramps)~~
- Trabuco Rd (e/o Culver Dr)
- Alton Pkwy (e/o Culver Dr)

Consistent with the City's traffic study guidelines, these locations have been further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Year 2030 for the 2012 Modified Project Option 1 scenario are summarized in Table 7-1 in the Traffic Study. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Year 2030 Peak Hour Intersection Levels of Service, with 2012 Modified Project Option 1

The Year 2030 for the 2012 Modified Project Option 1 AM and PM peak hour ICU results for the intersections illustrated in Figure 5.12-22 that are in the study area are summarized in Table 7-2 in the Traffic Study. Actual turn volumes, lane geometrics and ICU calculation worksheets for the Year 2030 for the 2012 Modified Project Option 1 scenario are included in Appendix 7.2 to the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, the following intersections shown in Table 5.12-7 exceed adopted impact thresholds under the Year 2030 for the 2012 Modified Project Option 1 conditions:

Table 5.12-7
Year 2030 Intersection ICU LOS With 2012 Modified Project Option 1
Project Impact Locations

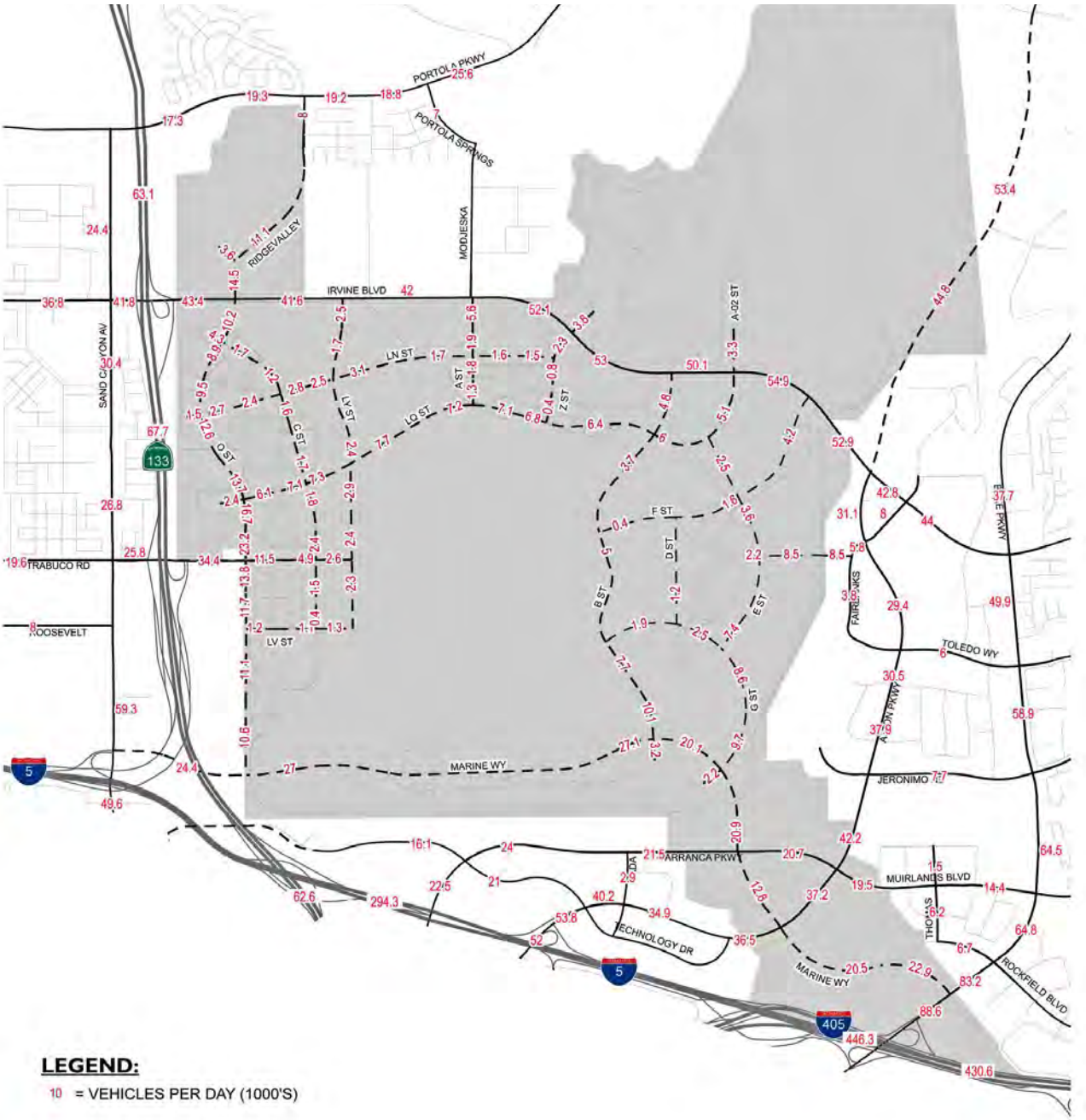
Intersection	Peak Hour	2030 Without 2012 Modified Project		2030 2012 Modified Project	
		ICU	LOS	ICU	LOS
Browning Ave. & Irvine Blvd.	AM	1.00	E	1.03	F
Culver Dr. & Barranca Pkwy.	AM	0.91	E	0.93	E
Jeffrey Rd. & Barranca Pkwy.	AM	0.90	D	0.92	E
Sand Canyon & I-5 NB Ramp/Marine	PM	0.83	D	0.94	E
Sand Canyon Ave. & Oak Canyon	PM	0.91	E	0.94	E
Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.01	F
Los Alisos Blvd. & Rockfield Blvd.	AM	0.92	E	0.94	E

Source: Urban Crossroads, 2012.

To address concerns expressed by Caltrans regarding the performance of freeway/tollway ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road interchanges have been analyzed using both the HCM methodology and the ICU methodology. The resulting Year 2030 Without 2012 Modified Project and with 2012 Modified Project peak hour levels of service based on the HCM methodology are summarized in Table 7-4 in the Traffic Study (HCM intersection LOS calculation worksheets are included in Appendix 7.3 to the Traffic Study). As the summary table indicates, each of the ramp intersections is forecasted to operate at an acceptable LOS (i.e., LOS D or better), with the exception of the Sand Canyon/I-5 northbound ramps and the Sand Canyon/I-5 southbound ramps.

In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection. Table 7-5 in the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Year 2030 with 2012 Modified Project Option 1 peak hour conditions (HCM queuing analysis calculation worksheets are included in Appendix 7.4 to the Traffic Study). As the summary table indicates, the results of the HCM analysis shows LOS "E" conditions with or without the 2012 Modified Project at the I-5 NB Ramp /Sand Canyon intersection. A modified lane configuration (restriping to accomplish dual left turn and dual right turn lanes) on the eastbound approach to the I-5 SB Ramp intersection would avoid vehicle queues backing onto the freeway mainline. The ultimate lane configuration would be subject to coordination and agreement between the City and Caltrans.

Year 2030 ADT Volumes with 2012 Modified Project Option 1 (1 of 2)



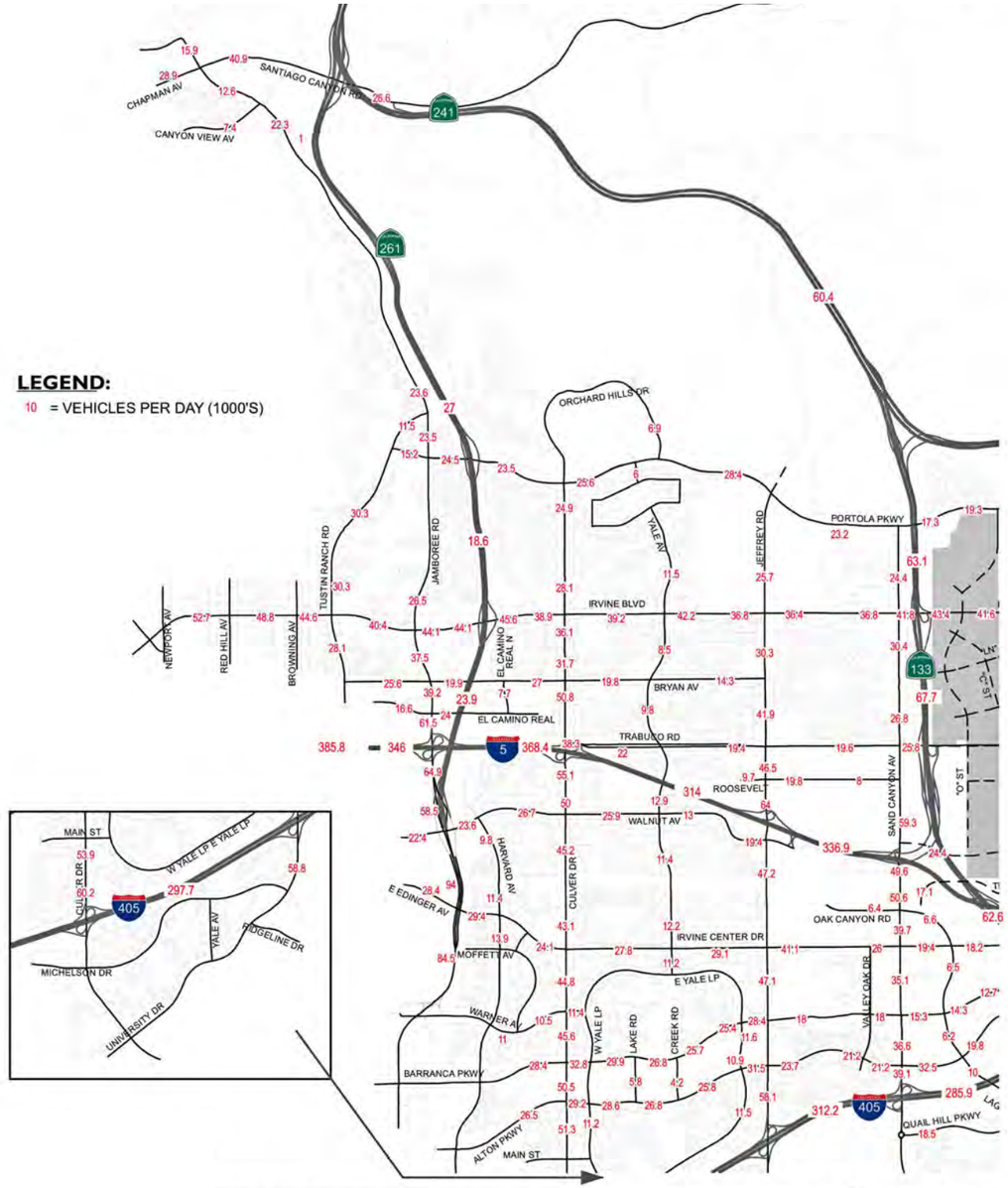
Project Area

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Scale (Feet)

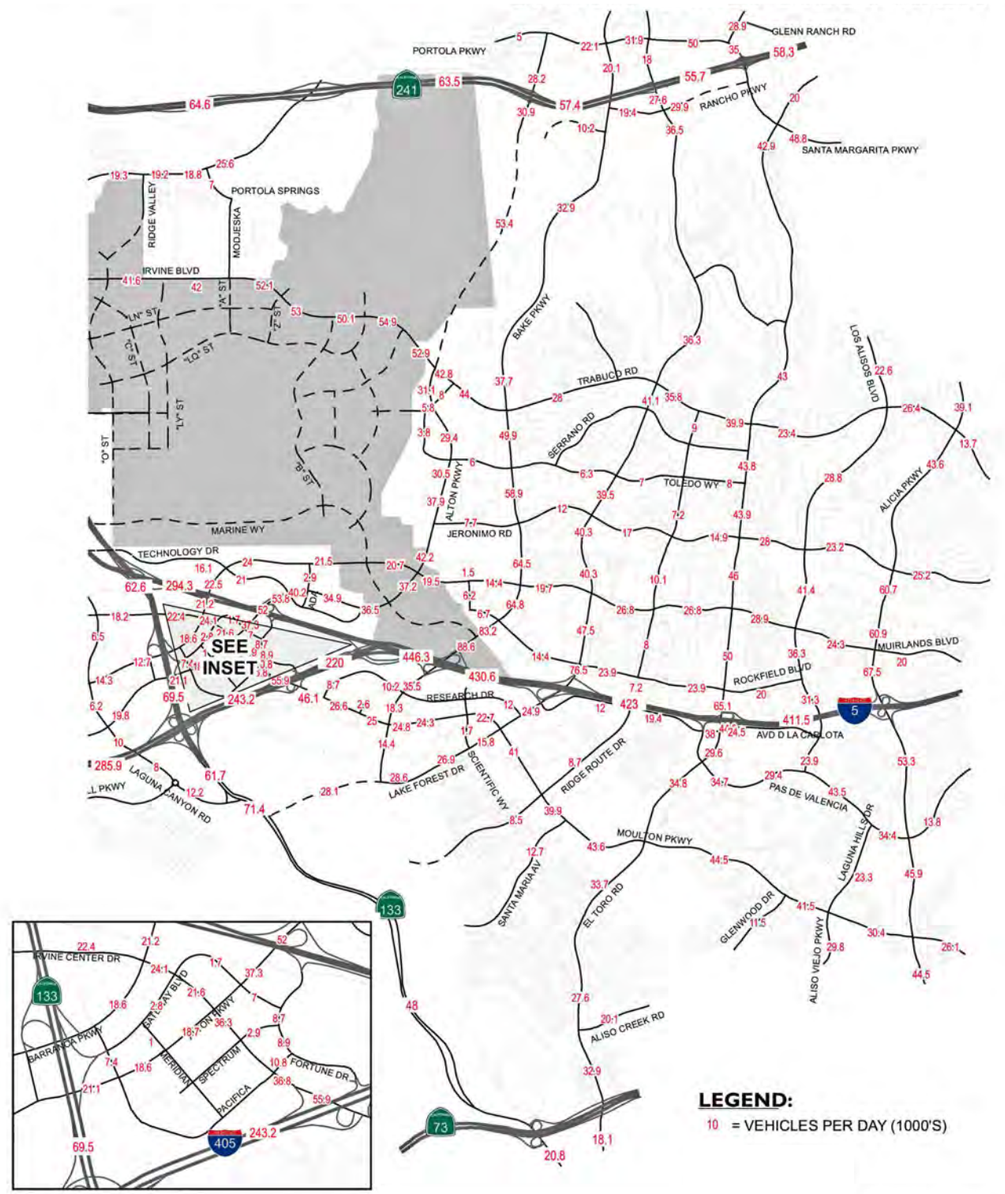
Source: Urban Crossroads 2013

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Year 2030 ADT Volumes with 2012 Modified Project Option 1 (2 of 2)



West Study Area



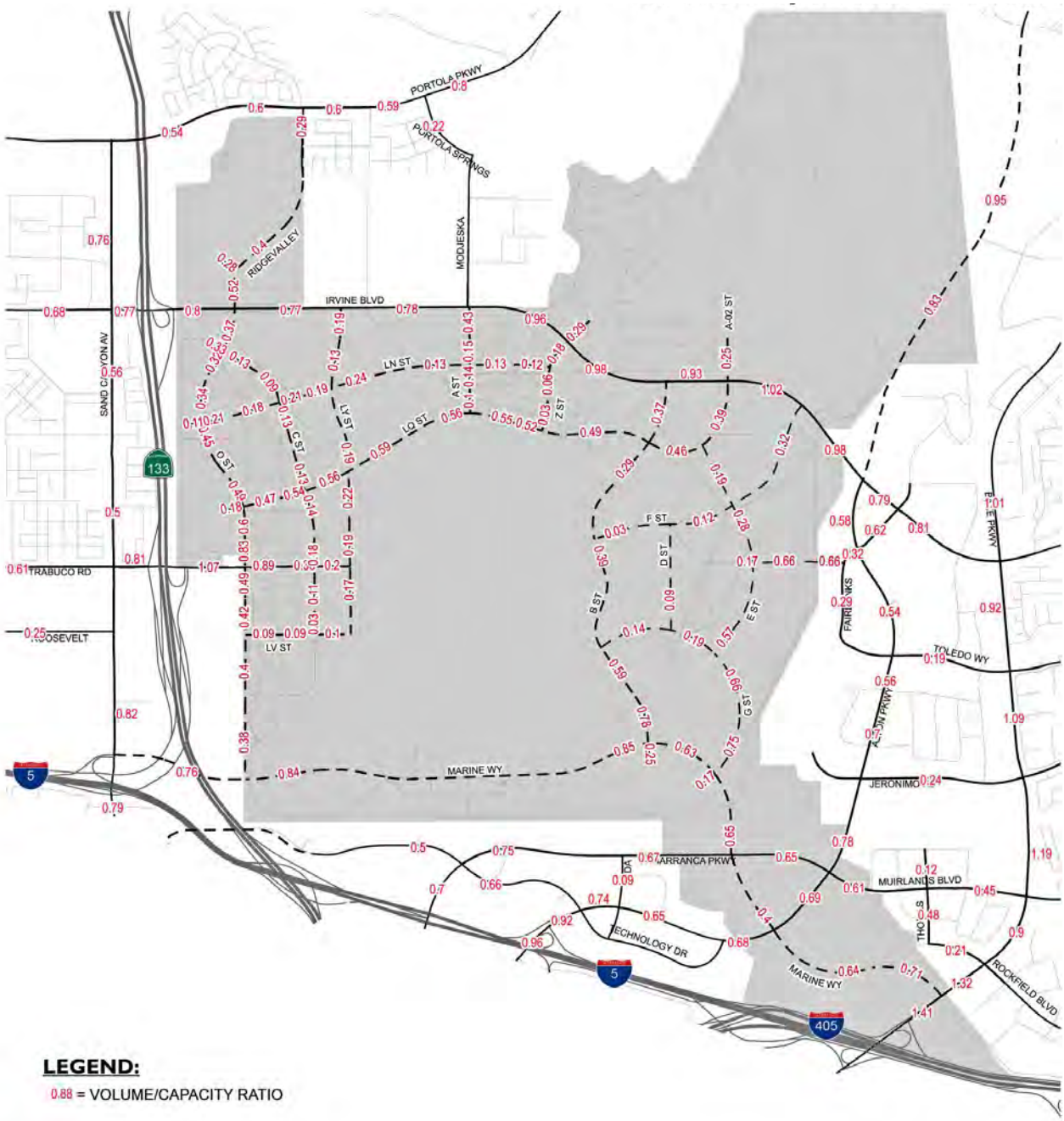
East Study Area

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Scale (Feet)

Source: Urban Crossroads 2013

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Year 2030 ADT V/C Ratios with 2012 Modified Project Option 1 (1 of 2)



Project Area

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Scale (Feet)

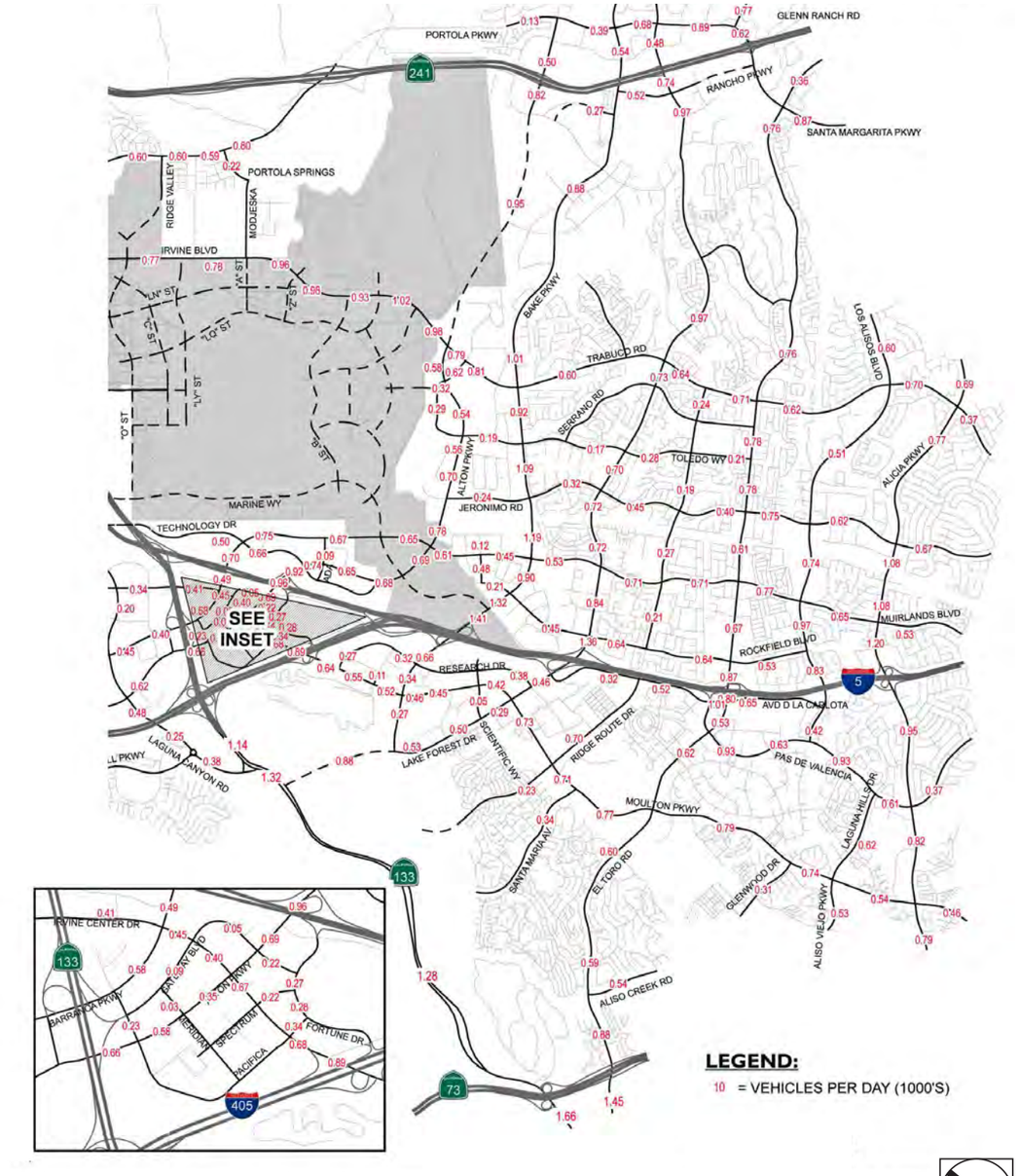
Source: Urban Crossroads 2013

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Year 2030 ADT V/C Ratios with 2012 Modified Project Option 1 (2 of 2)



West Study Area



East Study Area

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Scale (Feet)

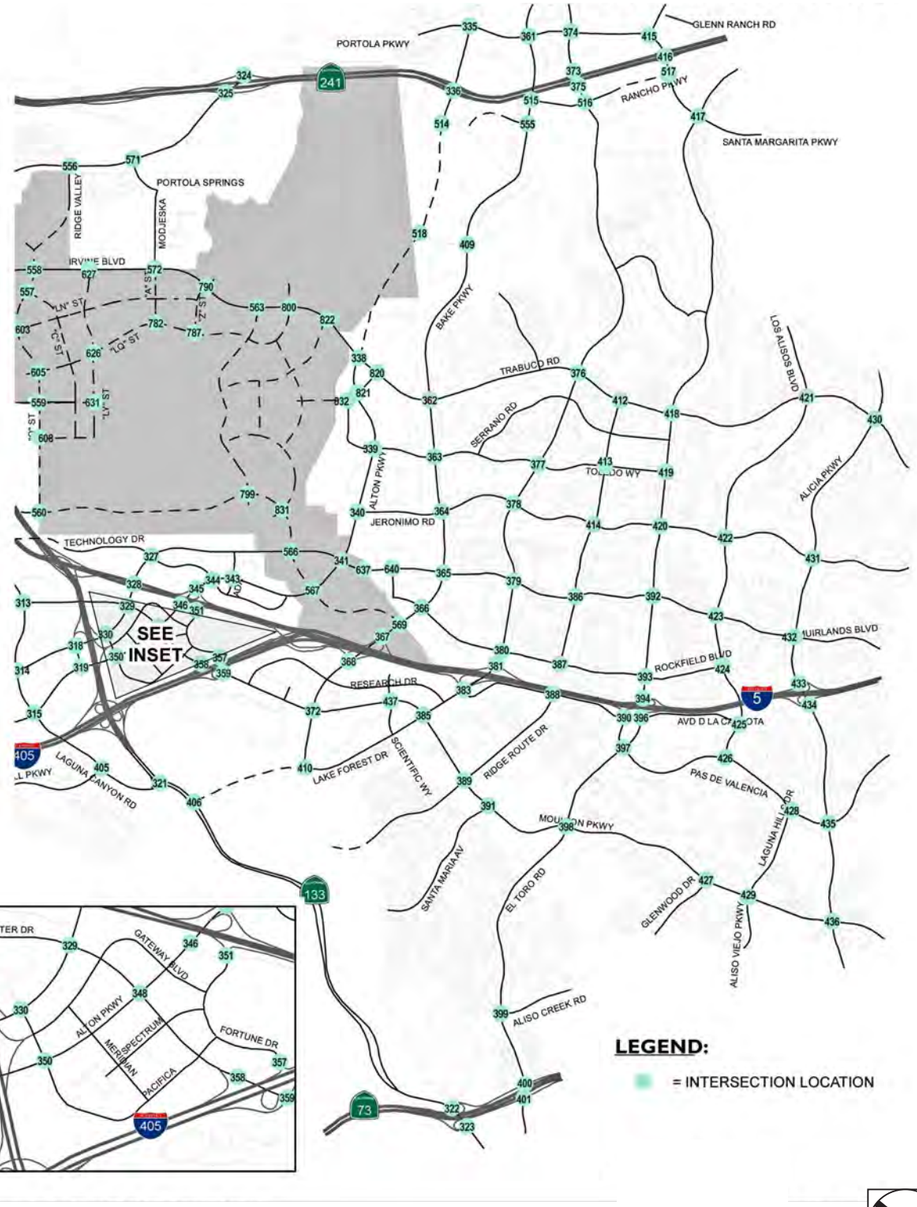
Source: Urban Crossroads 2013

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Year 2030 Intersection Location Map



West Study Area



East Study Area

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Scale (Feet)

Source: Urban Crossroads 2013

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Year 2030 Peak Hour Freeway/Tollway Ramp Levels of Service, with 2012 Modified Project Option 1

Figure 5.12-23 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Year 2030 conditions. The Year 2030 Without Project and with the 2012 Modified Project Option 1 AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 7-6 in the Traffic Study. Based on the peak hour ramp performance criteria and impact thresholds presented earlier, none of the freeway ramps are forecasted to exceed adopted impact thresholds (e.g., greater than or equal to 0.02, except at CMP locations outside Irvine where it is greater than 0.03) under Year 2030 with the 2012 Modified Project Option 1 conditions.

Year 2030 Peak Hour Freeway/Tollway Mainline Levels of Service, with 2012 Modified Project Option 1

The Year 2030 Without Project and 2012 Modified Project Option 1 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 7-7 in the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds discussed above, the following three (3) freeway mainline segments are forecasted to exceed adopted impact thresholds (e.g., greater than 0.03):

- I-5 Northbound, n/o Culver
- I-5 Northbound, n/o Jeffrey
- I-405 Northbound, n/o Jeffrey

Year 2030 Circulation System and Average Daily Traffic Volumes for 2012 Modified Project Option 2

The Year 2030 for 2012 Modified Project Option 2 ADT volumes and the corresponding V/C ratios are illustrated in Figure 5.12-24, and Figure 5.12-25, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed above, the following ~~four (4)~~five (5) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 2:

- Bake Pkwy (b/w Rockfield Bl and Marine Way)
- Irvine Bl (b/w A St and Z St)
- Irvine Bl (b/w Z St and B St)
- Trabuco Rd (e/o Culver Dr)
- Alton Pkwy (e/o Culver Dr)

Consistent with the City's traffic study guidelines, these locations have been further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Year 2030 for the 2012 Modified Project Option 2 condition are summarized in Table 7-8 in the Traffic Study. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Year 2030 Peak Hour Intersection Levels of Service, with 2012 Modified Project Option 2

The Year 2030 for the 2012 Modified Project Option 2 AM and PM peak hour ICU results for the intersections illustrated in previous Figure 5.12-22 that are in the study area are summarized in Table 7-9 in the Traffic Study. Actual turn volumes, lane geometrics and ICU calculation worksheets for the Year 2030 for the 2012 Modified Project Option 2 scenario are included in Appendix 7.5 to the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, the following intersections shown in Table 5.12-8 exceed adopted impact thresholds under the Year 2030 for the 2012 Modified Project Option 2 conditions:

Table 5.12-8
Year 2030 Intersection ICU LOS With 2012 Modified Project Option 2
Project Impact Locations

Intersection	Peak Hour	2030 Without 2012 Modified Project		2030 2012 Modified Project	
		ICU	LOS	ICU	LOS
Newport Ave. at Irvine Blvd.	PM	0.92	E	0.95	E
Browning Ave. at Irvine Blvd.	AM	1.00	E	1.02	F
Culver Dr. at Bryan Ave.	AM	0.89	D	0.91	E
Culver Dr. at Barranca Pkwy.	AM	0.91	E	0.93	E
Jeffrey Rd. at Barranca Pkwy.	AM	0.90	D	0.91	E
Sand Canyon at I-5 NB Ramp/Marine	PM	0.83	D	0.94	E
Sand Canyon Ave. at Oak Canyon	PM	0.91	E	0.93	E
Bake Pkwy. at Rockfield Blvd.	PM	0.98	E	1.01	F

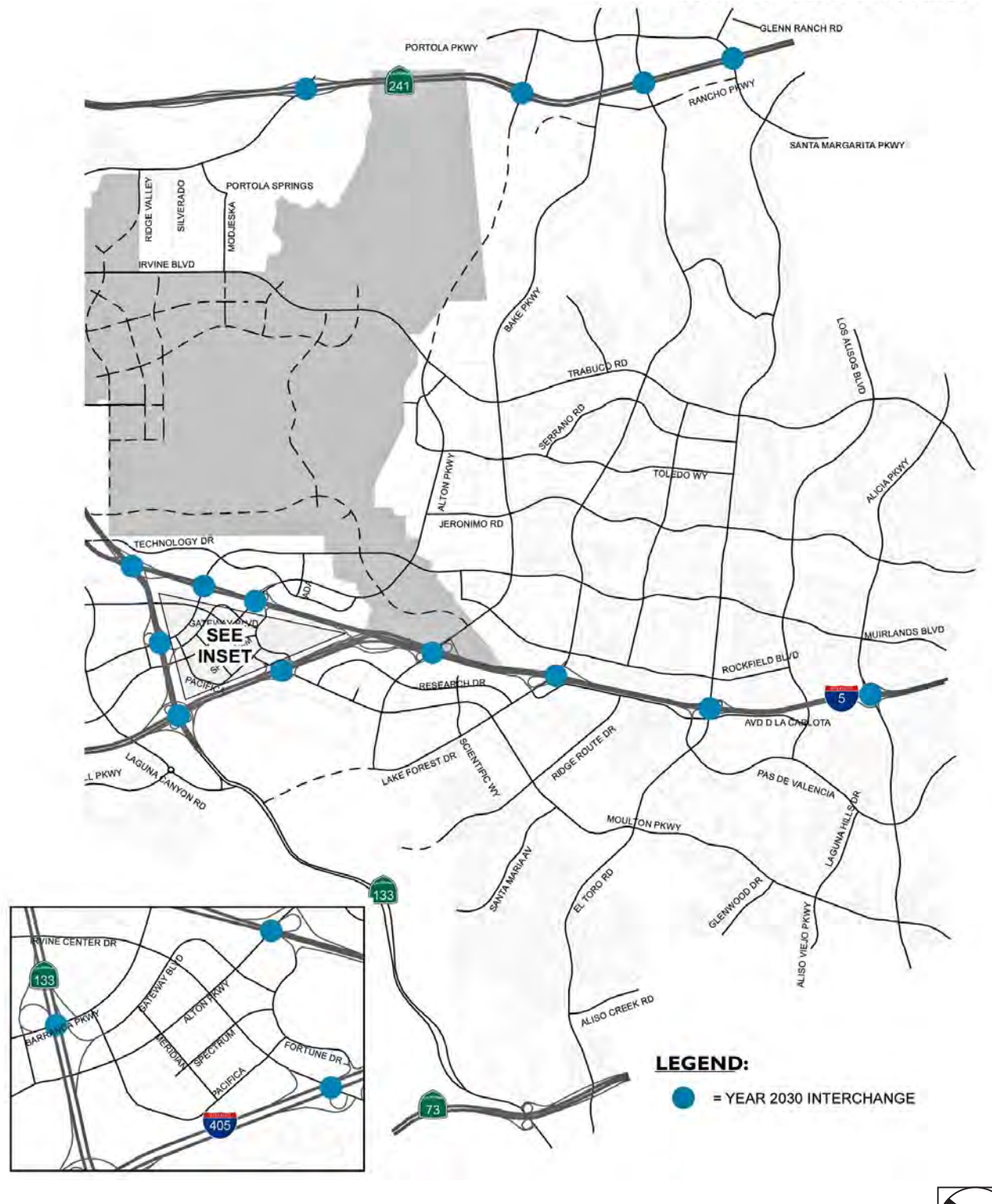
Source: Urban Crossroads, 2012.

To address concerns expressed by Caltrans regarding the performance of freeway/tollway ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road interchanges have been analyzed using both the HCM methodology and the ICU methodology. The resulting Year 2030 Without 2012 Modified Project and with 2012 Modified Project peak hour levels of service based on the HCM methodology are summarized in Table 7-11 in the Traffic Study (HCM intersection LOS calculation worksheets are included in Appendix 7.6 to the Traffic Study). As the summary table indicates, each of the ramp intersections is forecasted to operate at an acceptable LOS (i.e., LOS D or better), with the exception of the Sand Canyon/I-5 northbound ramps and the Sand Canyon/I-5 southbound ramps.

Year 2030 Freeway Interchange Locations



West Study Area



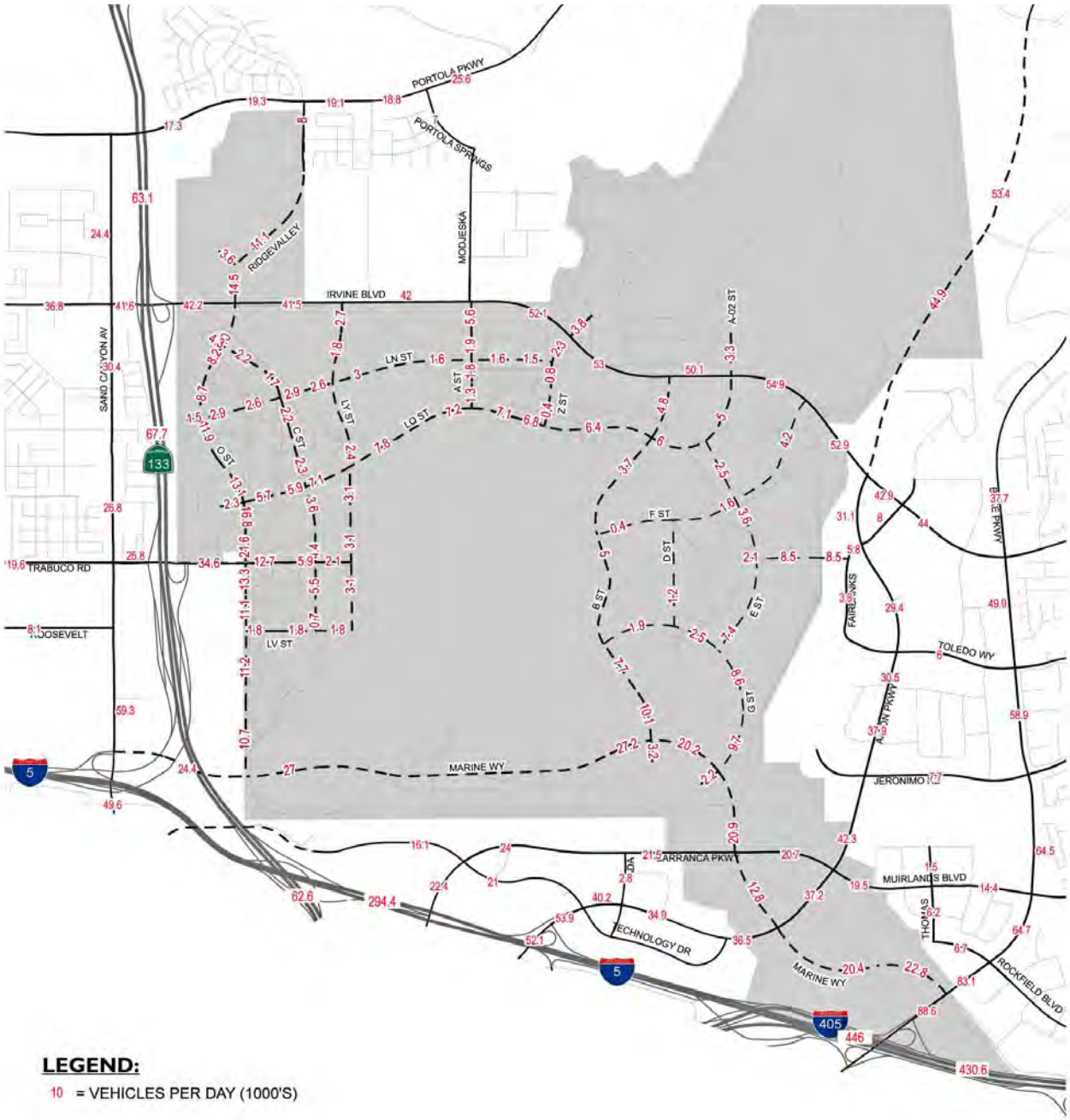
East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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Year 2030 ADT Volumes with 2012 Modified Project Option 2 (1 of 2)



Project Area

0 3,000
Scale (Feet)

Source: Urban Crossroads 2013

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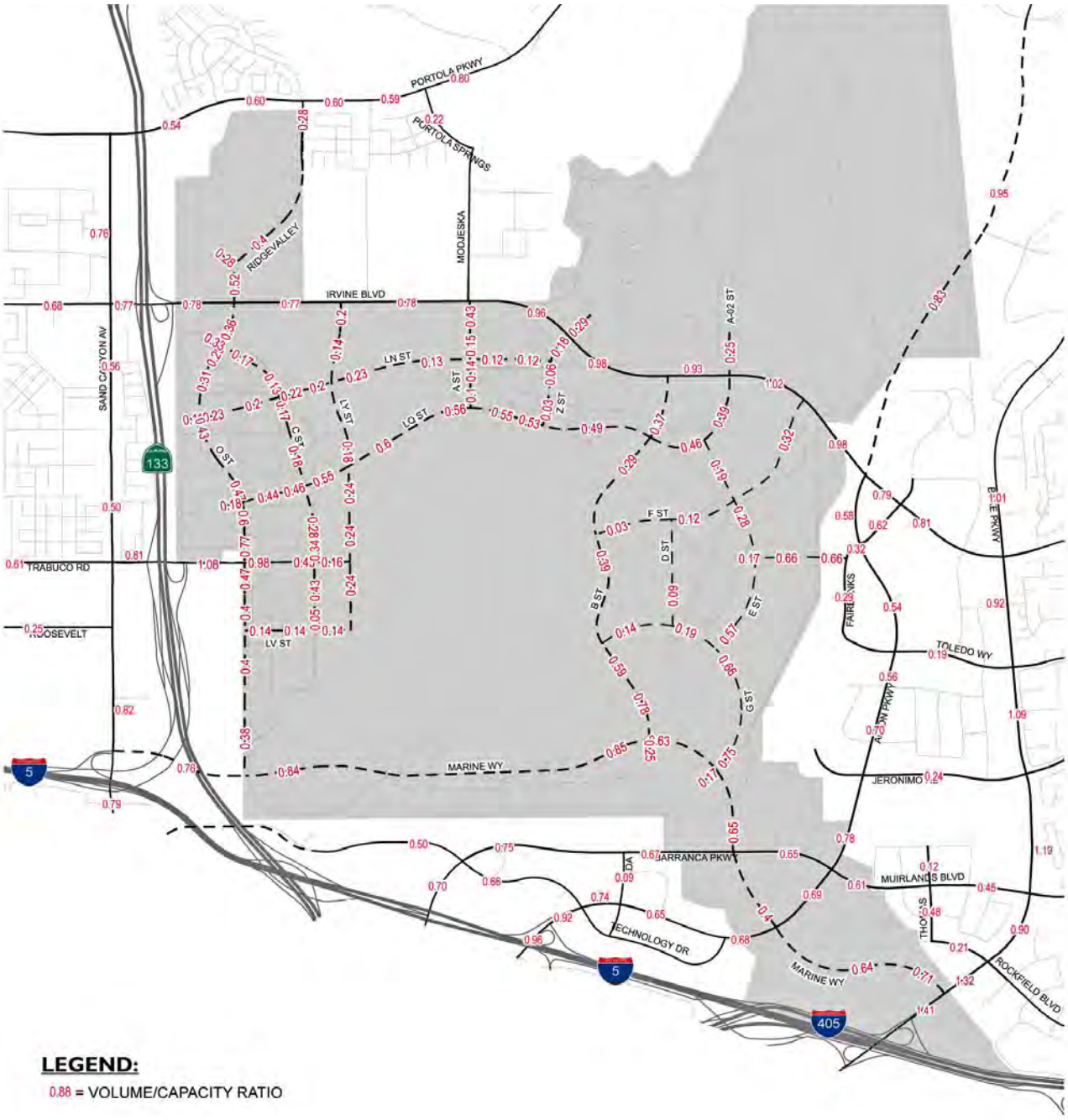
Year 2030 ADT Volumes with 2012 Modified Project Option 2 (2 of 2)



Source: Urban Crossroads 2013

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Year 2030 ADT V/C Ratios with 2012 Modified Project Option 2 (1 of 2)



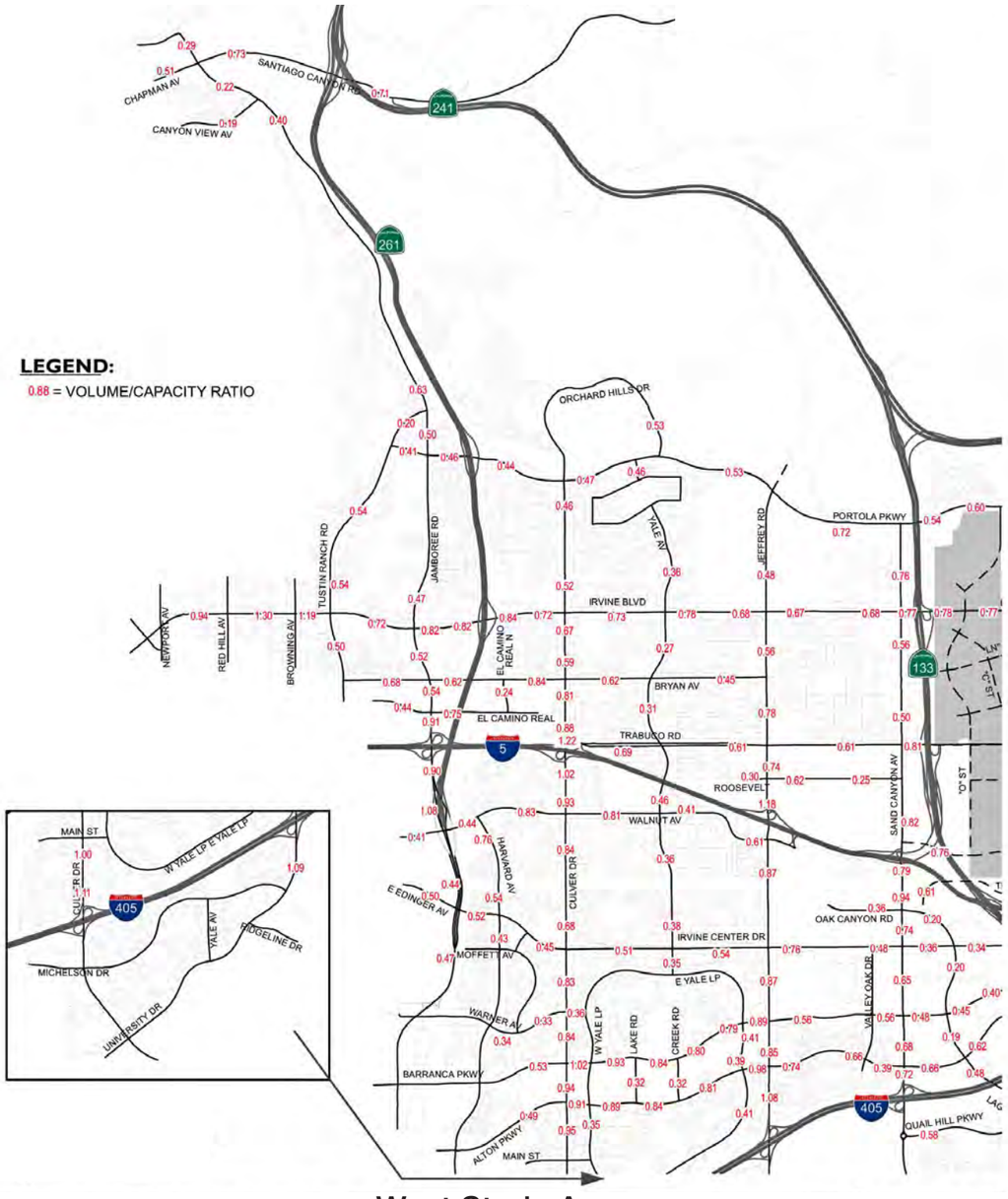
Project Area

0 3,000
Scale (Feet)

Source: Urban Crossroads 2013

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Year 2030 ADT V/C Ratios with 2012 Modified Project Option 2 (2 of 2)



Source: Urban Crossroads 2013

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In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection. Table 7-12 in the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Year 2030 with 2012 Modified Project Option 2 peak hour conditions (HCM queuing analysis calculation worksheets are included in Appendix 7.7 to the Traffic Study). As the summary table indicates, the results of the HCM analysis shows LOS "E" conditions with or without the 2012 Modified Project at the I-5 NB Ramp /Sand Canyon intersection. A modified lane configuration (restriping to accomplish dual left turn and dual right turn lanes) on the eastbound approach to the I-5 SB Ramp intersection would avoid vehicle queues backing onto the freeway mainline. The ultimate lane configuration would be subject to coordination and agreement between the City and Caltrans.

Year 2030 Peak Hour Freeway/Tollway Ramp Levels of Service, with 2012 Modified Project Option 2

Previous Figure 5.12-23 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Year 2030 conditions. The Year 2030 Without Project and with the 2012 Modified Project Option 2 AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 7-13 in the Traffic Study. Based on the peak hour ramp performance criteria and impact thresholds presented earlier, none of the freeway ramps are forecasted to exceed adopted impact thresholds (e.g., greater than or equal to 0.02, except at CMP locations outside Irvine where it is greater than 0.03) under Year 2030 with the 2012 Modified Project Option 2 conditions.

Year 2030 Peak Hour Freeway/Tollway Mainline Levels of Service, with 2012 Modified Project Option 2

The Year 2030 Without Project and 2012 Modified Project Option 2 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 7-14 in the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds discussed above, the following three (3) freeway mainline segments are forecasted to exceed adopted impact thresholds (e.g., greater than 0.03):

- I-5 Northbound, n/o Culver
- I-5 Northbound, n/o Jeffrey
- I-405 Northbound, n/o Jeffrey

Year 2030 Mitigation Summary

The following presents the impact locations under 2030 conditions for the 2012 Modified Project Alternatives for Options 1 and 2. For additional alternatives for shared lane deployment, see Section 7-3 of the Traffic Study (Appendix I).

Option 1 Impact Locations

The following seven (7) intersections exceed adopted impact thresholds with the 2012 Modified Project with Option 1:

- Browning Ave. & Irvine Blvd.
- Culver Dr. & Barranca Pkwy.
- Jeffrey Rd. & Barranca Pkwy.
- Sand Canyon Ave. & I-5 NB Ramp/Marine Way
- Sand Canyon Ave. & Oak Canyon
- Bake Pkwy. & Rockfield Blvd.
- Los Alisos Blvd. & Rockfield Blvd.

Because existing occupied land uses along Irvine Boulevard at the Browning Avenue intersection constrain the construction of additional east-west through travel lanes which are consistent with the City of Tustin General Plan and County MPAH, the 2012 Modified Project Option 1 mitigation identifies ATMS at this location to optimize signal performance to mitigate impacts at this intersection, at the discretion of the City of Tustin.

At the intersection of Culver Drive / Barranca Parkway, the Project is responsible for NITM fair share participation towards the improvement (conversion of the westbound defacto right-turn lane to through lane) as mitigation for the Project impact. Planning Area 1/9 GPA/ZC has previously been identified as funding the balance of the fair share NITM Program improvement at this intersection.

At the intersection of Jeffrey Road / Barranca Parkway, the impact would be mitigated by advancing to 2030 the previously identified and funded ATMS mitigation scheduled for Post-2030.

The project mitigation at Sand Canyon Avenue / I-5 NB ramps/Marine Way is the conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. An alternative is to designate LOS "E" acceptance at this location and satisfy the requirements through TMSOS/ATMS participation. The level of TMSOS/ATMS participation shall be consistent with the methodology applied in the NITM Program.

The project mitigation at Sand Canyon Avenue / Oak Canyon is fair share responsibility for a previously identified PA40/12 mitigation improvement that would convert the westbound shared through/right lane to a single through lane and convert the westbound right-turn lane into a free-right turn lane. If pending projects are approved, this mitigation improvement will no longer be needed.

At ~~T~~the Bake Parkway / Rockfield Boulevard intersection, the Project is responsible for ~~impact is mitigated by a fully funded modified LFTM Program improvement which involves~~ the conversion of a westbound through lane to a 3rd left turn lane.

At the Los Alisos Boulevard/Rockfield Boulevard intersection, Project participation in the NITM improvement (addition of a southbound right turn lane) mitigates the impact.

The 2012 Modified Project Option 1 exceeds the adopted impact threshold for 2030 conditions at the I-5 Northbound off-ramp to Jamboree Road. The proposed mitigation at this location is participation in the fair share funded NITM improvements to add a second drop lane from the I-5 to the Jamboree Road off-ramp.

Table 5.12-9 contains the analysis of these seven intersections and one freeway ramp with the proposed mitigation:

Table 5.12-9
Year 2030 LOS With 2012 Modified Project Option 1
Project Impact Locations With Mitigation

Intersection	Peak Hour	2030 Without Project		2030 With Project		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Browning Ave. & Irvine Blvd.	AM	1.00	E	1.03	F	0.98[2]	E
Culver Dr. & Barranca Pkwy.	AM	0.91	E	0.93	E	0.90	D
Jeffrey Rd. & Barranca Pkwy.	AM	0.90	D	0.92	E	0.87[2]	D
Sand Canyon & I-5 NB Ramp/Marine Way[1]	PM	0.83	D	0.94	E	0.89	D
Sand Canyon Ave. & Oak Canyon	PM	0.91	E	0.94	E	0.74	C
Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.01	F	0.90	D
Los Alisos Blvd. & Rockfield Blvd.	AM	0.92	E	0.94	E	0.75	C
Ramp Location:							
I-5 NB Off-Ramp to Jamboree*[3]	AM	1.05	F	1.07	F	0.71	C

Source: Urban Crossroads, 2012.
* CMP intersection.
[1] Assuming LOS "E" not acceptable
[2] ATMS credit (0.05) has been applied.
[3] Improvement Capacity = 2,250, PM peak hour V/C = 0.57 (LOS A)

Project fair share participation in a directional capacity enhancement equivalent to a single general purpose lane at the following three freeway mainline segments mitigates the 2012 Modified Project Option 1 contribution to impacts at these locations:

- I-5 Northbound, n/o Culver
- I-5 Northbound, n/o Jeffrey
- I-405 Northbound, n/o Jeffrey

Option 2 Impact Locations

Six of the seven intersections impacted by the 2012 Modified Project Option 1 are also impacted with Option 2. At these six locations, the Option 1 mitigation measures (described above) also mitigate Option 2 impacts:

- Browning Ave. & Irvine Blvd.
- Culver Dr. & Barranca Pkwy.
- Jeffrey Rd. & Barranca Pkwy.
- Sand Canyon Ave. & I-5 NB Ramp/Marine Way
- Sand Canyon Ave. & Oak Canyon
- Bake Pkwy. & Rockfield Blvd.

For 2030 conditions with the 2012 Modified Project Option 2, the following two additional intersections are also impacted:

- Newport Ave. & Irvine Blvd.
- Culver Dr. & Bryan Ave

The mitigation for the 2012 Modified Project Option 2 impact at Newport Drive/Irvine Boulevard intersection is a signal modification – northbound right turn overlap phase. If pending projects are approved, this mitigation improvement will no longer be needed.

The mitigation for the 2012 Modified Project Option 2 impact at Culver Drive/Bryan Avenue intersection is the addition of a westbound defacto right-turn lane. If pending projects are approved, this mitigation improvement will no longer be needed.

Table 5.12-10 contains the analysis of the 2012 Modified Project Option 2 impacted locations with the proposed mitigation:

Table 5.12-10
Year 2030 LOS With 2012 Modified Project Option 2
Project Impact Locations With Mitigation

Intersection	Peak Hour	2030 Without Project		2030 With Project		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Newport Ave. at Irvine Blvd.	PM	0.92	E	0.95	E	0.91	E
Browning Ave. at Irvine Blvd.	AM	1.00	E	1.02	F	0.97[2]	E
Culver Dr. at Bryan Ave.	AM	0.89	D	0.91	E	0.88	D
Culver Dr. at Barranca Pkwy.	AM	0.91	E	0.93	E	0.90	D
Jeffrey Rd. at Barranca Pkwy.	AM	0.90	D	0.91	E	0.86[2]	D
Sand Canyon at I-5 NB Ramp/Marine Wy.[1]	PM	0.83	D	0.94	E	0.89	D
Sand Canyon Ave. at Oak Canyon	PM	0.91	E	0.93	E	0.74	C
Bake Pkwy. at Rockfield Blvd.	PM	0.98	E	1.01	F	0.91	E

Source: Urban Crossroads, 2012.
[1] Assuming LOS "E" not acceptable.
[2] ATMS credit (0.05) has been applied.

Project fair share participation in a directional capacity enhancement equivalent to a single general purpose lane at the following three freeway mainline segments mitigates the 2012 Modified Project Option 2 contribution to impacts at these locations:

- I-5 Northbound, n/o Culver
- I-5 Northbound, n/o Jeffrey
- I-405 Northbound, n/o Jeffrey

5.12.5.5 General Plan Buildout (Post-2030) Analysis

This section compares the Post-2030 Without Project Scenario to the 2012 Modified Project Option 1 and Option 2. The baseline for this DSSEIR is the 2011 Approved Project. As discussed previously, ITAM 8.4-10 and the LFTAM were used to prepare the Post-2030 Without Project and 2012 Modified Project traffic forecasts. The results of the Post-2030 traffic impact analysis for Options 1 and 2 are summarized below.

Post-2030 Traffic Impacts with 2012 Modified Project Option 1

The following sub-sections summarize the resulting Post-2030 Without Project and with the 2012 Modified Project Option 1 traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps.

Post-2030 Circulation System and Average Daily Traffic Volumes, Option 1

The Post-2030 2012 Modified Project Option 1 ADT volumes and corresponding V/C ratios are illustrated in Figures 5.12-26 and 5.12-27, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed above, the following three (3) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 1:

- Alton Pkwy (b/w Culver Dr and W. Yale Loop)
- Bake Pkwy (b/w Rockfield Bl and Marine Way)
- Jeffrey Rd (b/w Roosevelt and I-5 NB Ramps)

Consistent with the City's traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Post-2030 with the 2012 Modified Project conditions are summarized in Table 8-1 in the Traffic Study. As the summary table indicates, all arterial roadway segments are forecasted to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

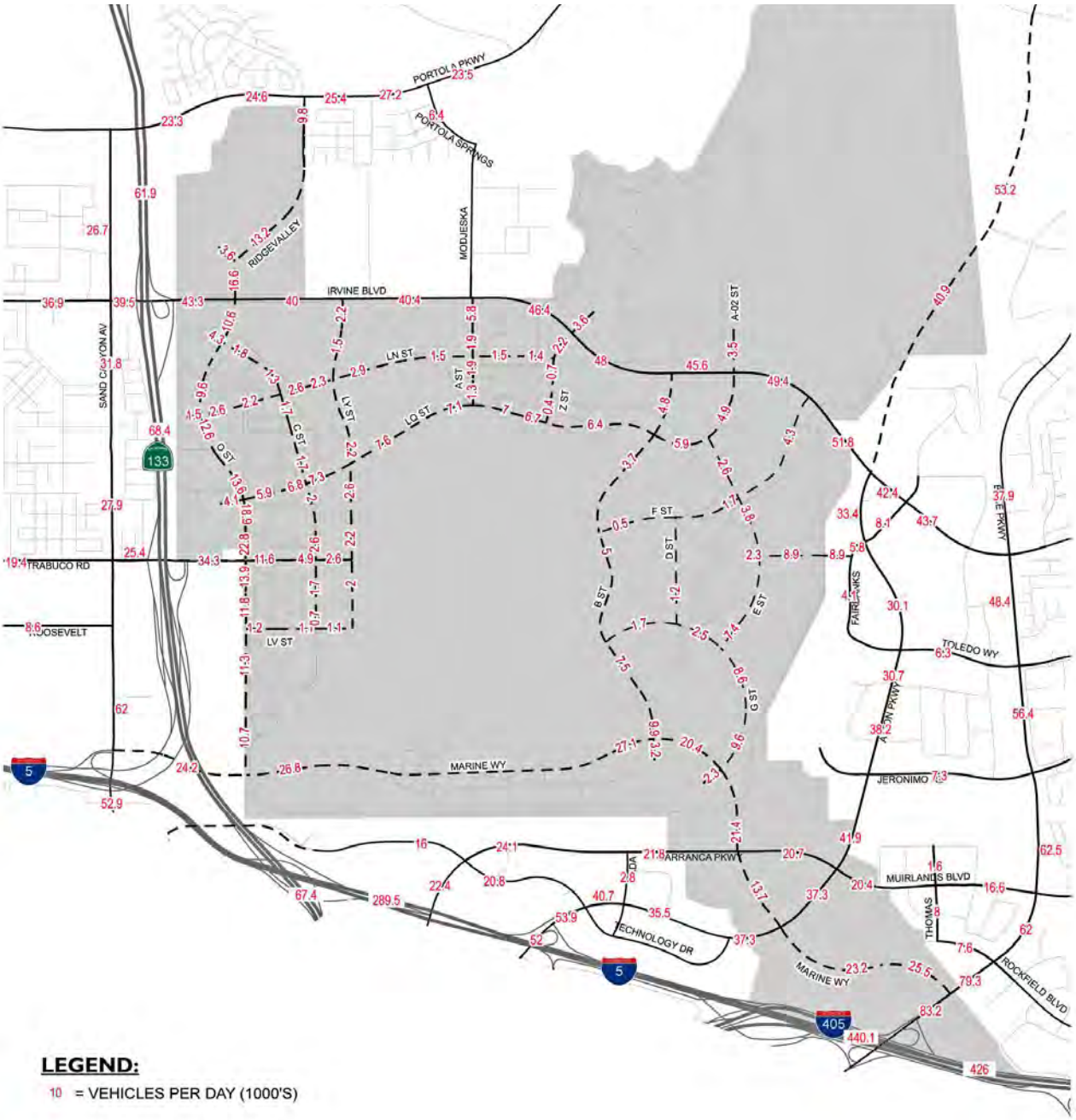
Post-2030 Peak Hour Intersection Levels of Service, Option 1

The Post-2030 with the 2012 Modified Project Option 1 AM and PM peak hour ICU results for the intersections illustrated in Figure 5.12-28 that are part of the study area are summarized in Table 8-2 in the Traffic Study. Actual turning volumes, lane geometrics and ICU calculation worksheets for the Post-2030 2012 Modified Project Option 1 scenario are included in Appendix 8.2 to the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, the intersections of Jeffrey Road & Roosevelt, Jeffrey Road & Alton Parkway, and Laguna Canyon Road & Old Laguna Canyon exceed adopted impact thresholds under the 2012 Modified Project Option 1 scenario based on Post-2030 conditions, as shown on Table 5.12-11.

Table 5.12-11
Post-2030 Intersection ICU LOS With 2012 Modified Project Option 1
Project Impact Locations

Intersection	Peak Hour	2011 Approved Baseline		2012 Modified Project	
		ICU	LOS	ICU	LOS
Jeffrey Rd. & Roosevelt	AM	0.89	D	0.91	E
Jeffrey Rd. & Alton Pkwy.	AM	0.90	D	0.91	E
Laguna Cyn. & Old Laguna Cyn.	AM	0.92	E	0.94	E

Post-2030 ADT Volumes with 2012 Modified Project Option 1 (1 of 2)



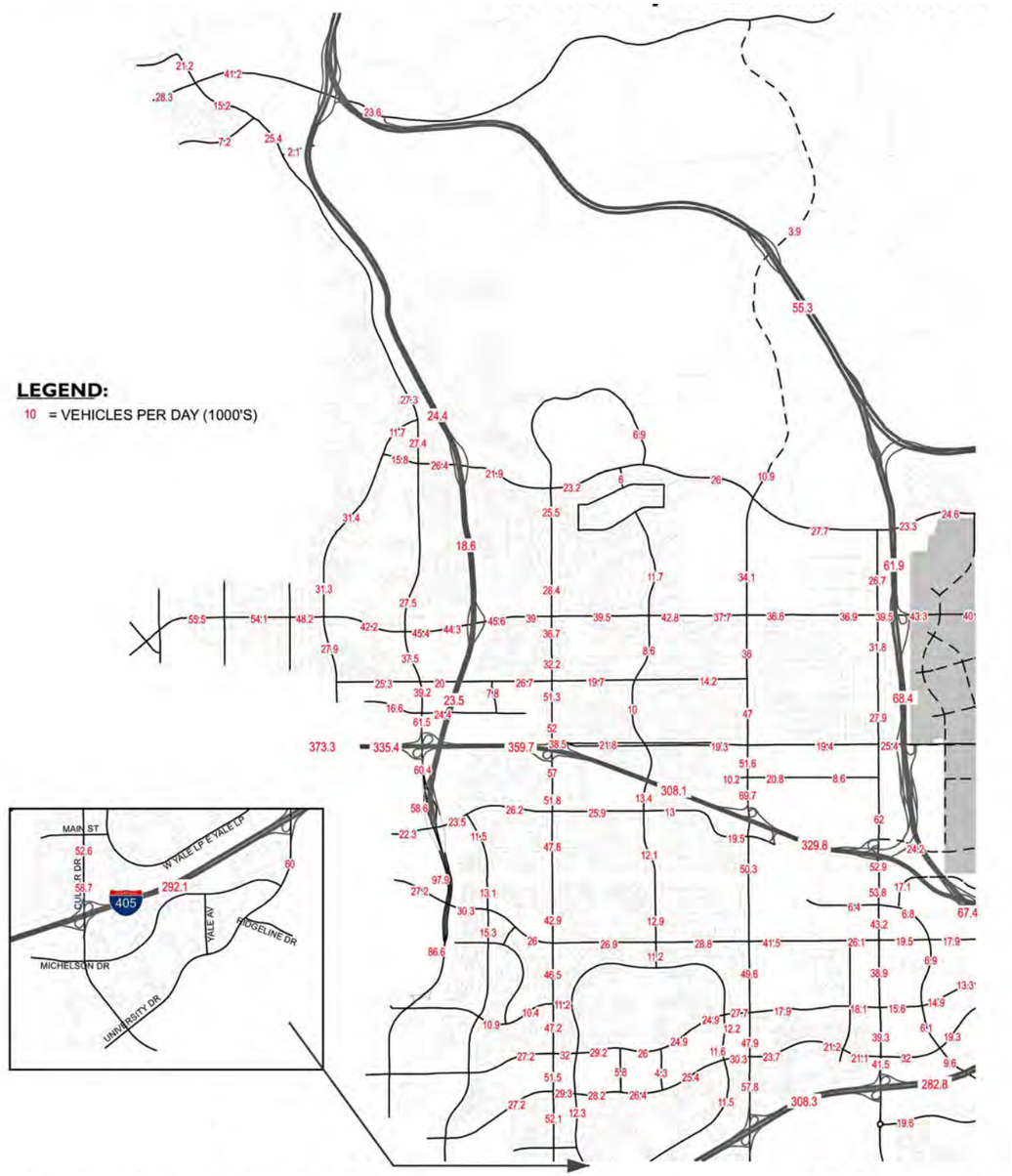
Project Area

0 3,000
Scale (Feet)

Source: Urban Crossroads 2013

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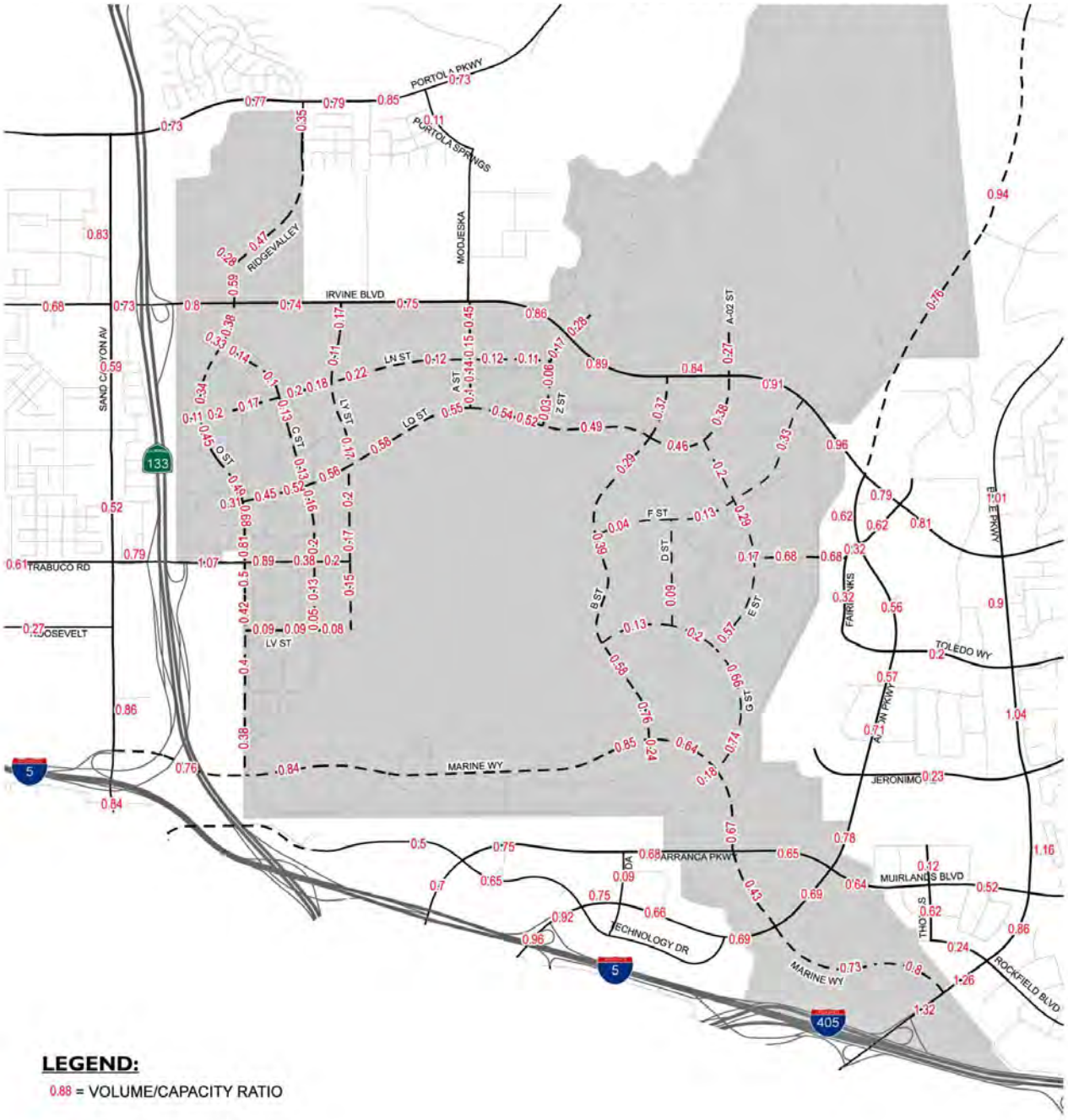
Post-2030 ADT Volumes with 2012 Modified Project Option 1 (2 of 2)



Source: Urban Crossroads 2013

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Post-2030 ADT V/C Ratios with 2012 Modified Project Option 1 (1 of 2)



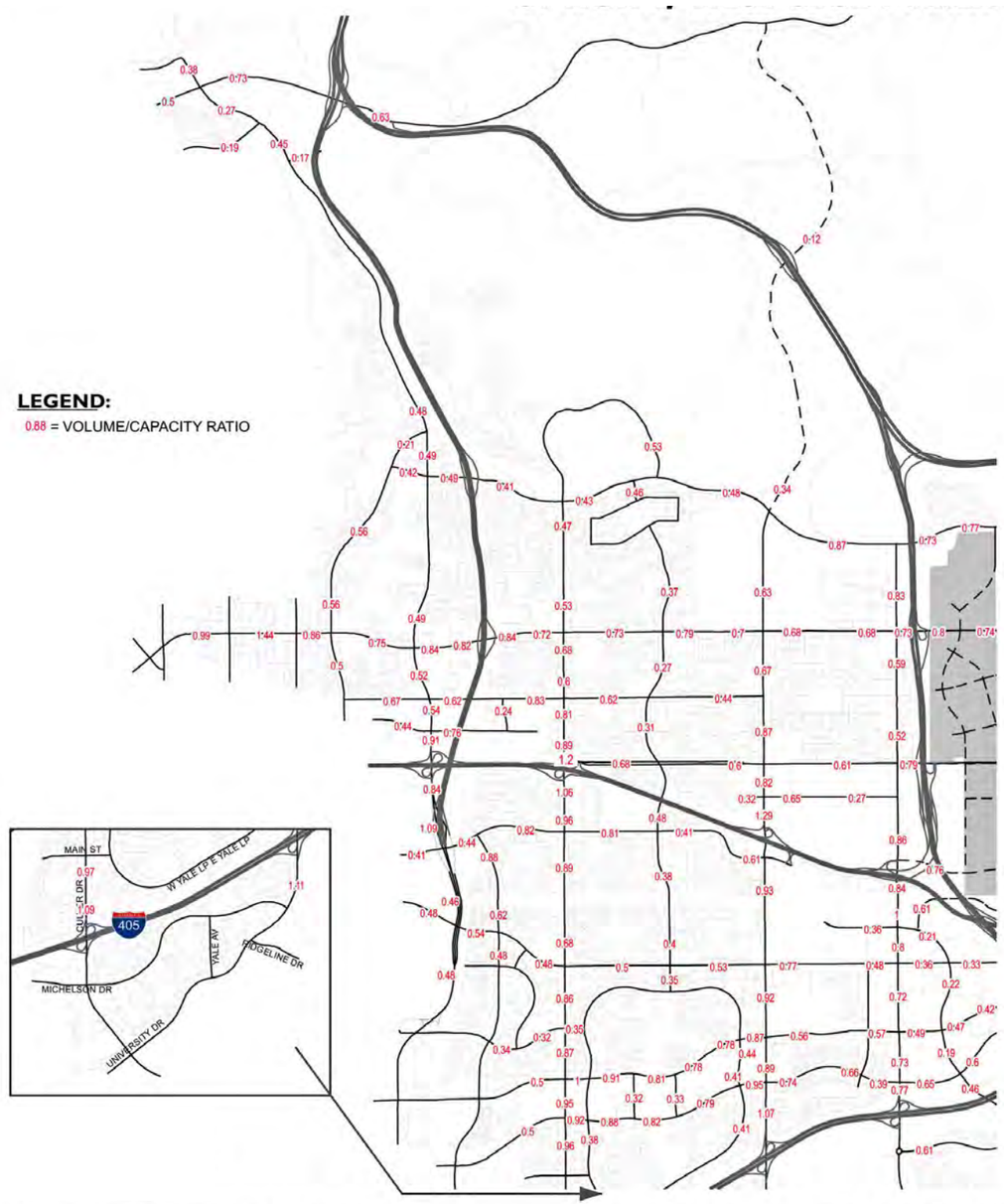
Project Area

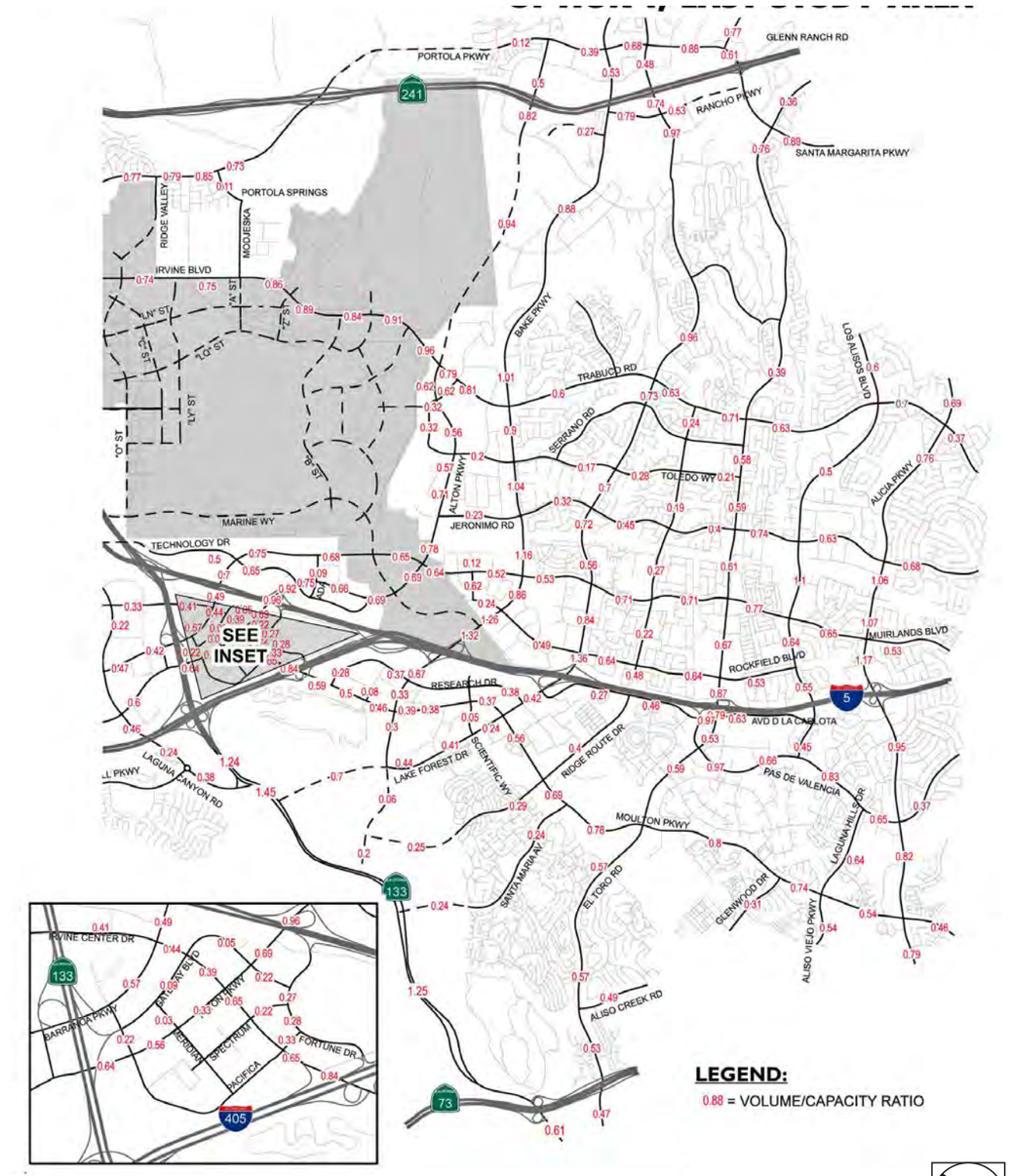
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Scale (Feet)

Source: Urban Crossroads 2013

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Post-2030 ADT V/C Ratios with 2012 Modified Project Option 1 (2 of 2)





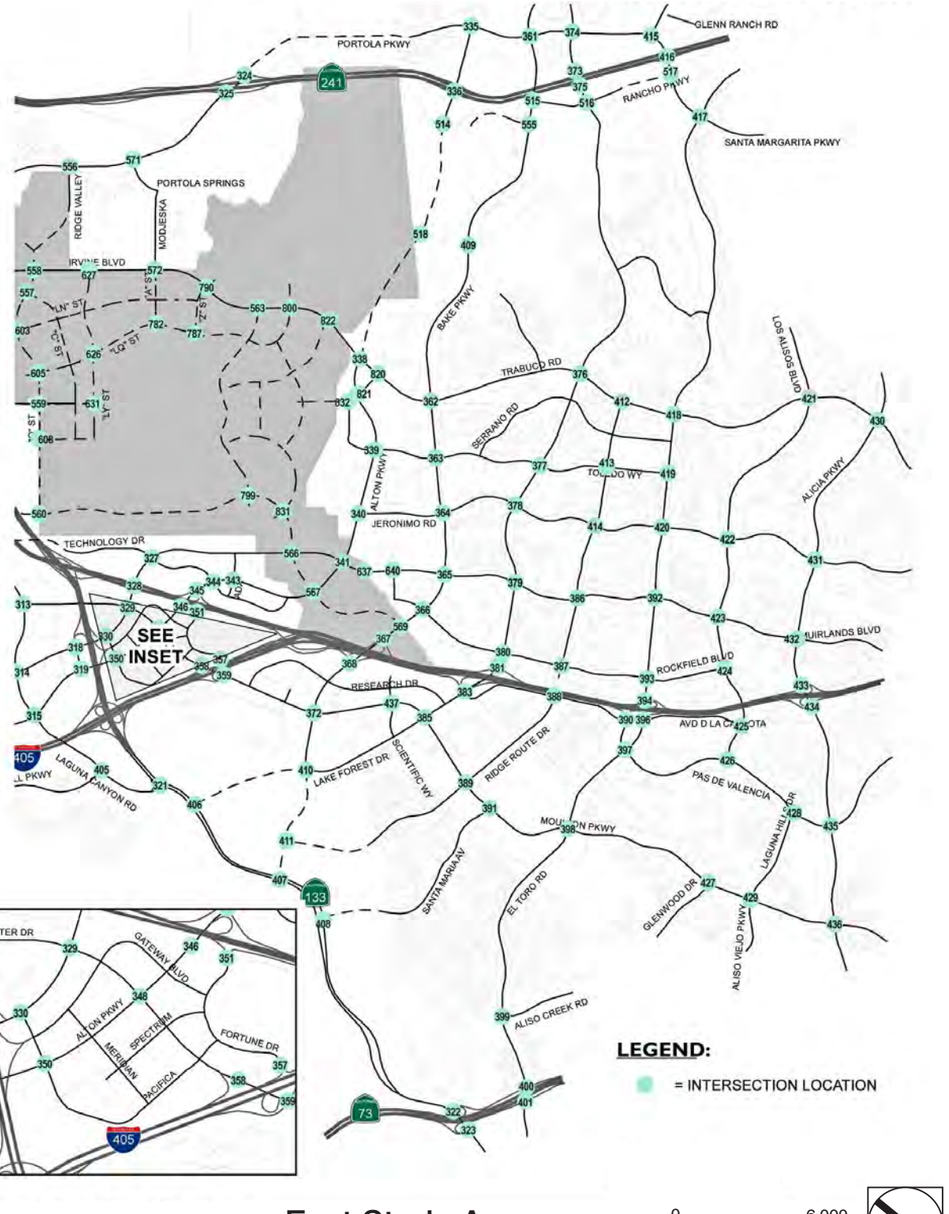
Source: Urban Crossroads 2013

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Post-2030 Intersection Location Map



West Study Area



East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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To address concerns expressed by Caltrans regarding the performance of ramp intersections in the immediate vicinity of the Project, the freeway ramp intersections at Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, SR-133/Trabuco Road interchanges have been analyzed using the Highway Capacity Manual (HCM) methodology in addition to the ICU methodology. The resulting 2011 Approved Project (baseline) and 2012 Modified Project Option 1 peak hour levels of service based on the HCM methodology are summarized in Table 8-4 (HCM intersection LOS calculation worksheets are included in Appendix 8.3). The Sand Canyon/I-5 SB Ramps intersection includes delay and LOS information for two scenarios: "Currently Proposed Lanes (EB Shared Left-Right Turn Lane)" and "Alternative Configuration (EB Dual Right Lanes)". The eastbound (EB) approach lanes for the first scenario consist of two left turn lanes, one shared left-right lane, and one right turn lane. The EB approach lanes for the second scenario consist of two left turn lanes and two right turn lanes.

In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard ramp intersections and SR-133/Trabuco Road based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection. Table 8-5 of the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Year 2030 with 2012 Modified Project Option 1 peak hour conditions (HCM queuing analysis calculation worksheets are included in Appendix 8.4 in the Traffic Study). The results of the HCM analysis shows LOS “E” conditions with or without the 2012 Modified Project Option 1 at the I-5 NB Ramp /Sand Canyon intersection. A modified lane configuration (restriping to accomplish dual left turn and dual right turn lanes) on the eastbound approach to the I-5 SB Ramp intersection would avoid vehicle queues backing onto the freeway mainline. LOS “E” conditions also occur at the I-5 SB Ramp /Sand Canyon intersection with the 2012 Modified Project Option 1. The ultimate lane configuration would be subject to coordination and agreement between the City and Caltrans.

Post-2030 Peak Hour Freeway/Tollway Ramp Levels of Service, Option 1

Figure 5.12-29 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Post-2030 conditions. 2011 Approved Project (baseline) and 2012 Modified Project Option 1 AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 8-6 in the Traffic Study. Based on the peak hour ramp performance criteria and impact thresholds presented earlier, none of the freeway ramps are forecast exceed adopted impact thresholds with the 2012 Modified Project Option 1 based on Post-2030 conditions..

Post-2030 Peak Hour Freeway/Tollway Mainline Levels of Service, Option 1

The 2011 Approved Project (baseline) and 2012 Modified Project Option 1 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 8-7 in the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds, the freeway mainline segment of the I-405 northbound, north of Jeffrey is forecast to exceed adopted impact thresholds with 2012 Modified Project Option 1 based on Post-2030 conditions.

Post-2030 Traffic Impacts with 2012 Modified Project Option 2

The following sub-sections summarize the resulting 2011 Approved Project (baseline) and 2012 Modified

Project Option 2 traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps.

Post-2030 Circulation System and Average Daily Traffic Volumes, Option 2

The Post-2030 2012 Modified Project Option 2 ADT volumes and corresponding V/C ratios are illustrated in Figure 5.12-30, and Figure 5.12-31, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed above, the following three (3) arterial roadway segments are potentially impacted by the 2012 Modified Project Option 2:

- Alton Pkwy (b/w Culver Dr and W. Yale Loop)
- Bake Pkwy (b/w Rockfield Bl and Marine Way)
- Jeffrey Rd (b/w Roosevelt and I-5 NB Ramps)

Consistent with the City's traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under Post-2030 with the 2012 Modified Project Option 2 conditions are summarized in Table 8-8 in the Traffic Study. As the summary table indicates, all arterial roadway segments are forecasted to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

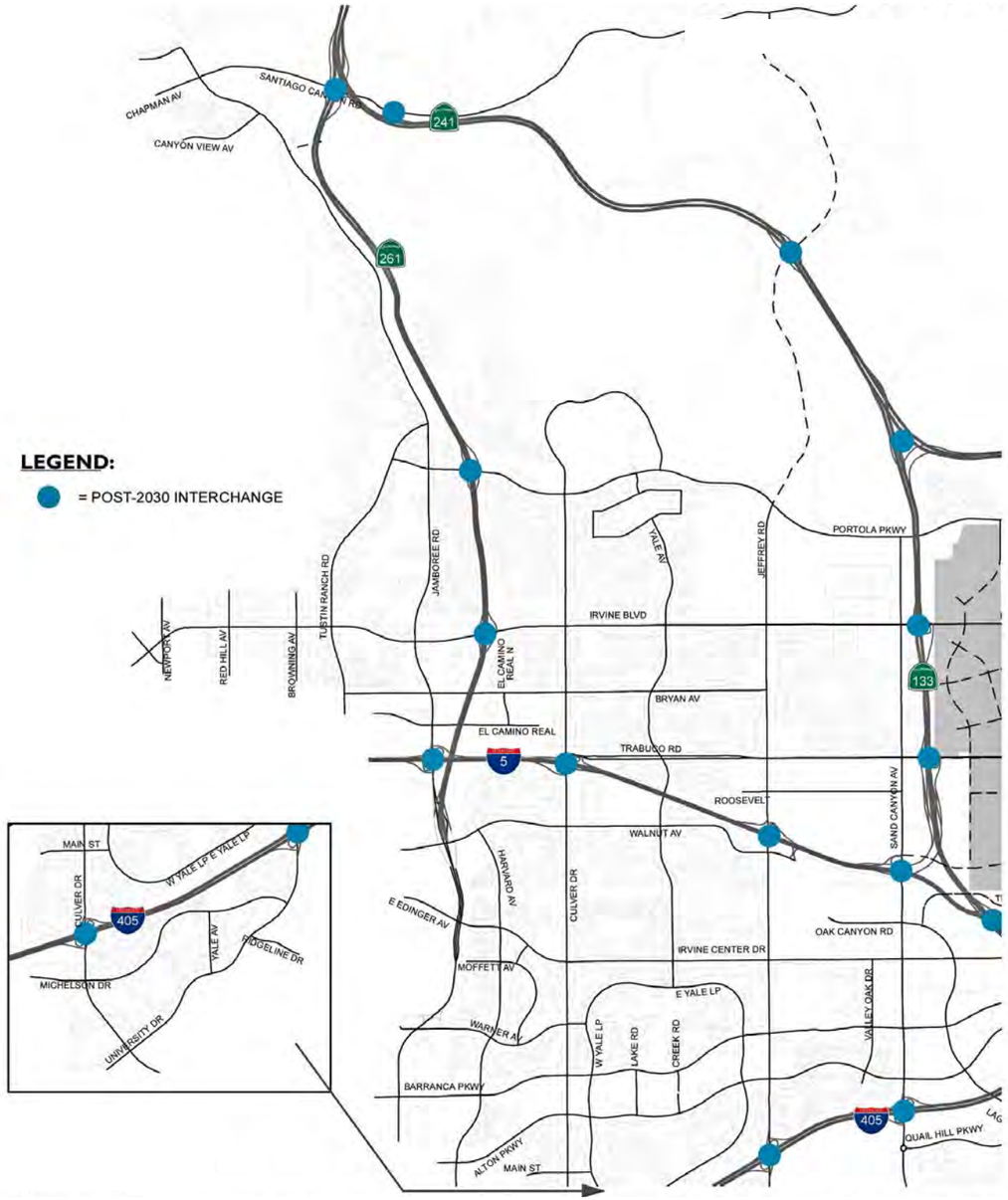
Post-2030 Peak Hour Intersection Levels of Service, Option 2

The Post-2030 with the 2012 Modified Project Option 2 AM and PM peak hour ICU results for the intersections illustrated in previous Figure 5.12-28 that are part of the study area are summarized in Table 8-9 in the Traffic Study. Actual turning volumes, lane geometrics and ICU calculation worksheets for the Post-2030 2012 Modified Project Option 2 scenario are included in Appendix 8.5 to the Traffic Study. Based on the peak hour intersection performance criteria and impact thresholds, the intersections of Jeffrey Road & Roosevelt, Jeffrey Road & Alton Parkway, and Laguna Canyon Road & Old Laguna Canyon exceed adopted impact thresholds under the 2012 Modified Project Option 2 scenario based on Post-2030 conditions, as shown on Table 5.12-12 below.

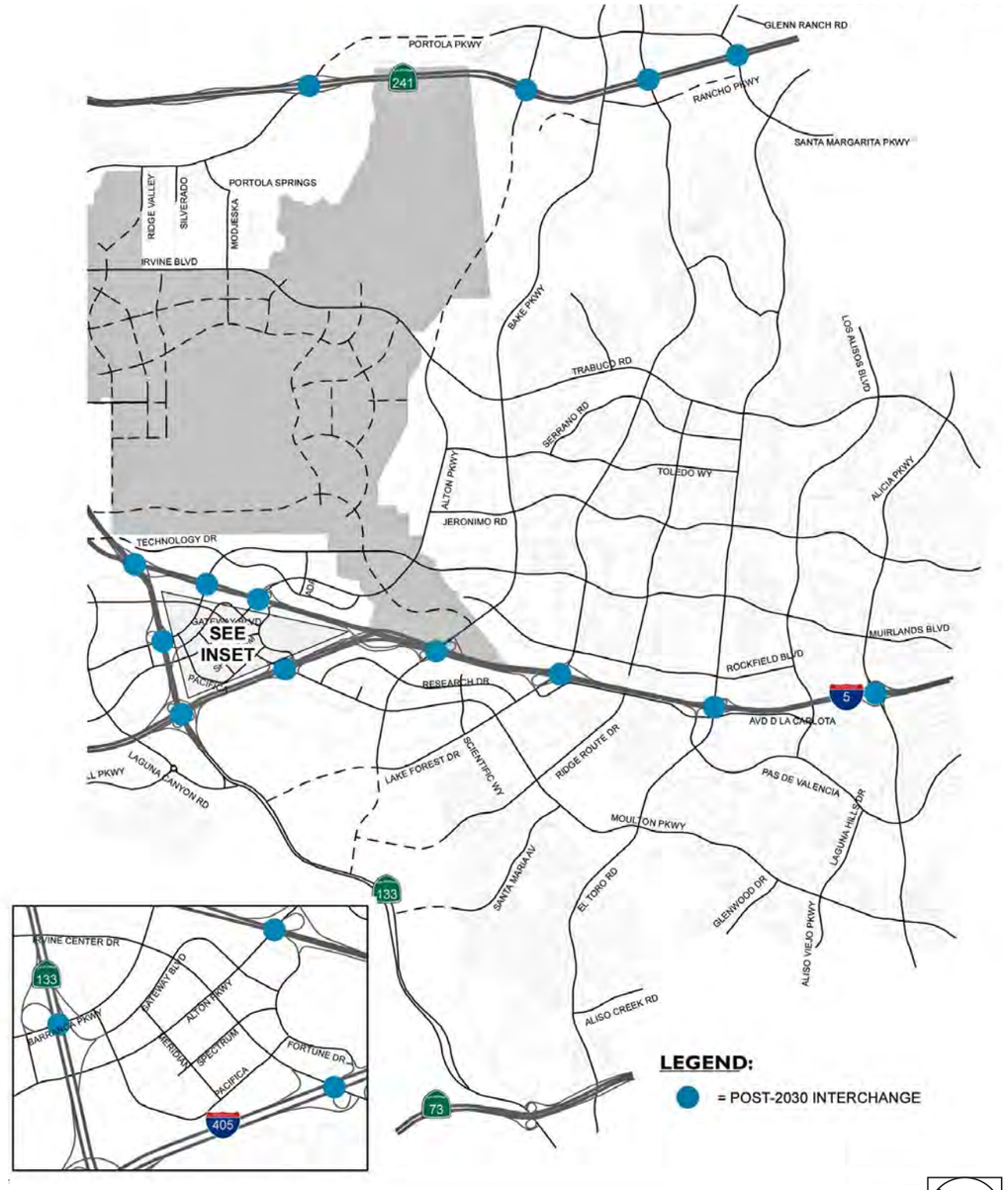
Table 5.12-12
Post-2030 Intersection ICU LOS With 2012 Modified Project Option 2
Project Impact Locations

		2011 Approved Baseline		*2012 Modified Project*	
Intersection	*Peak Hour*	*ICU*	*LOS*	*ICU*	*LOS*
Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E
Laguna Cyn. & Old Laguna Cyn.	AM	0.92	E	0.94	E

Post-2030 Freeway Interchange Locations



West Study Area



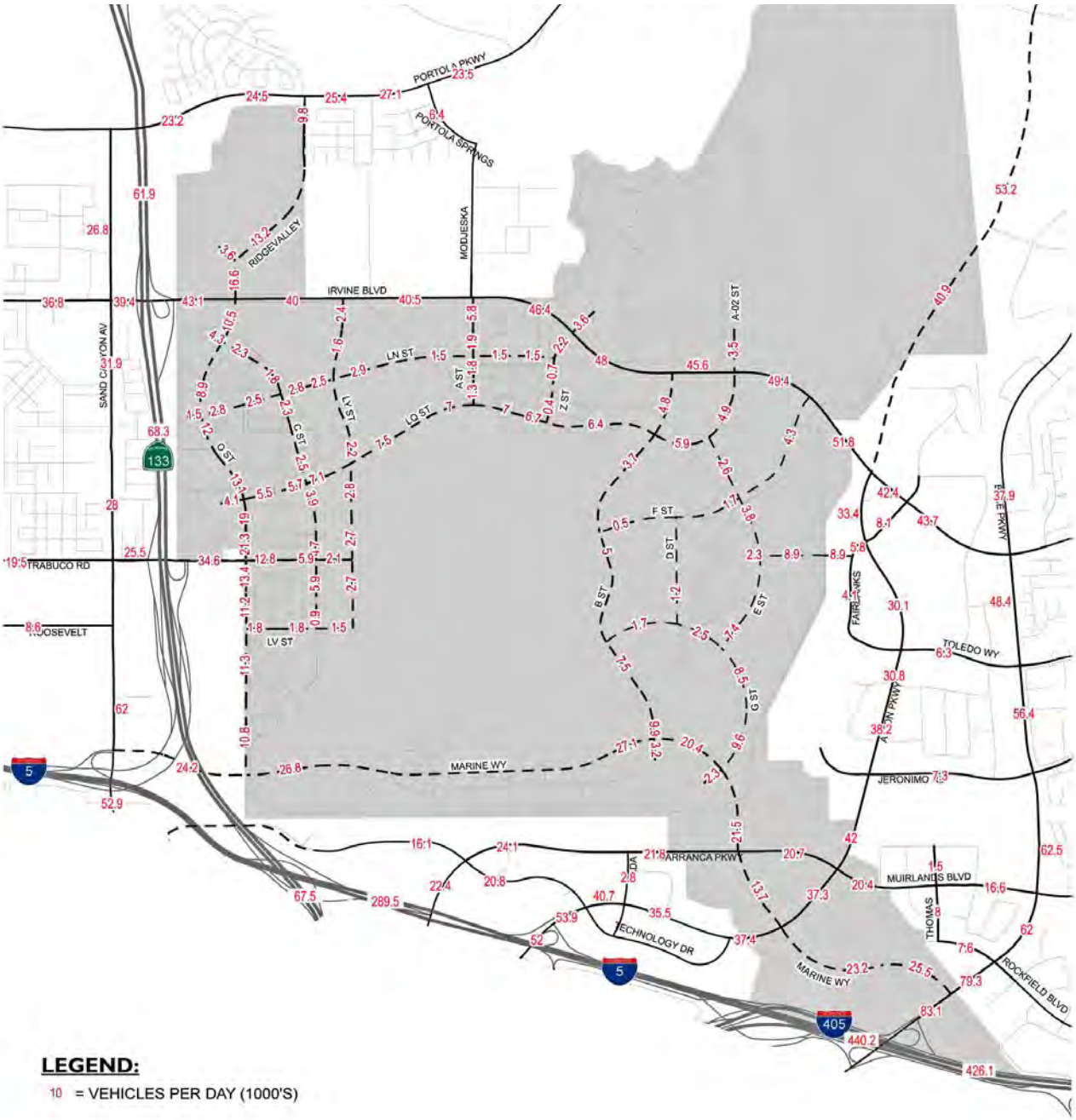
East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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Post-2030 ADT Volumes with 2012 Modified Project Option 2 (1 of 2)



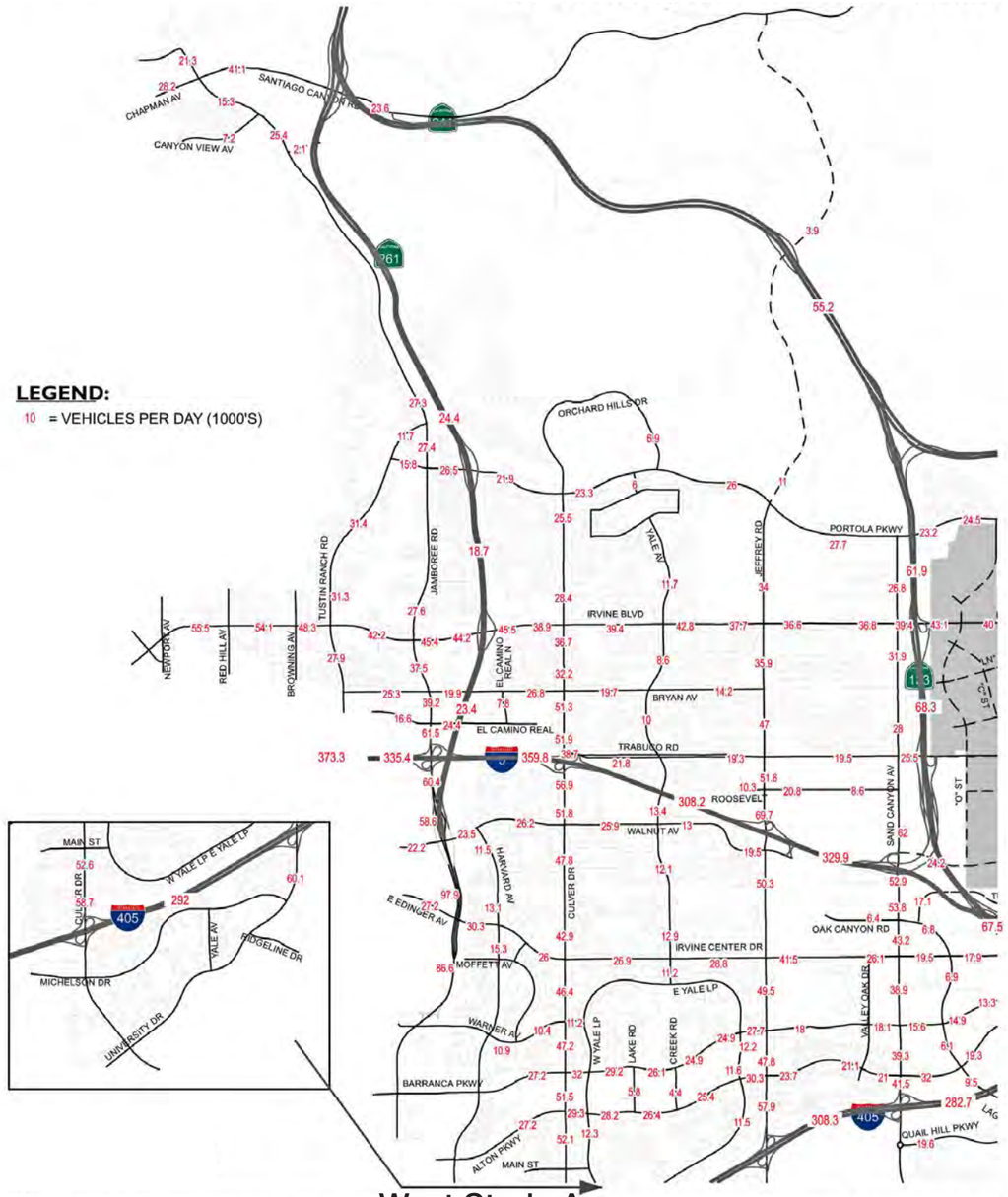
Project Area

0 3,000
Scale (Feet)

Source: Urban Crossroads 2013

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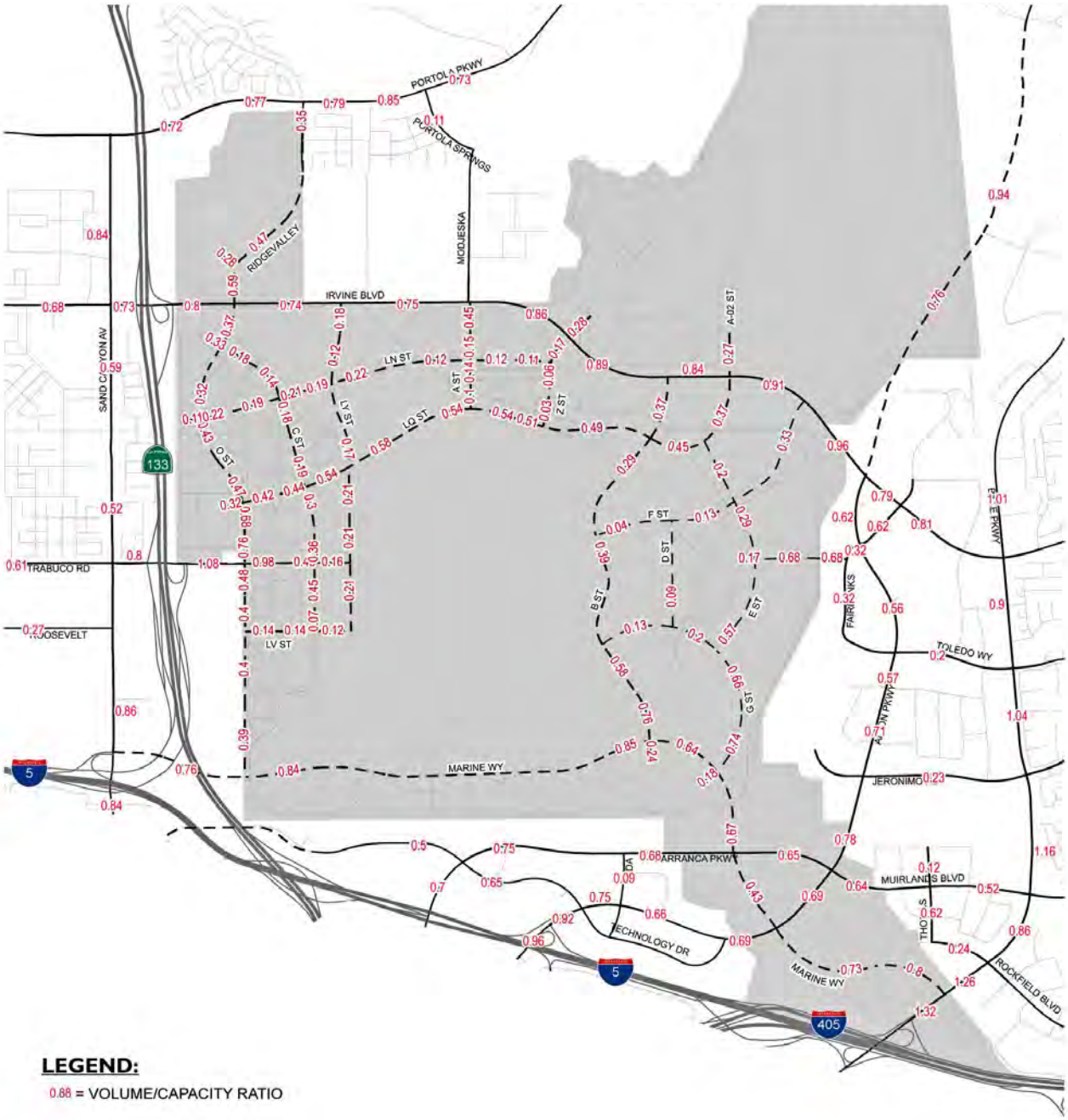
Post-2030 ADT Volumes with 2012 Modified Project Option 2 (2 of 2)



Source: Urban Crossroads 2013

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Post-2030 ADT V/C Ratios with 2012 Modified Project Option 2 (1 of 2)



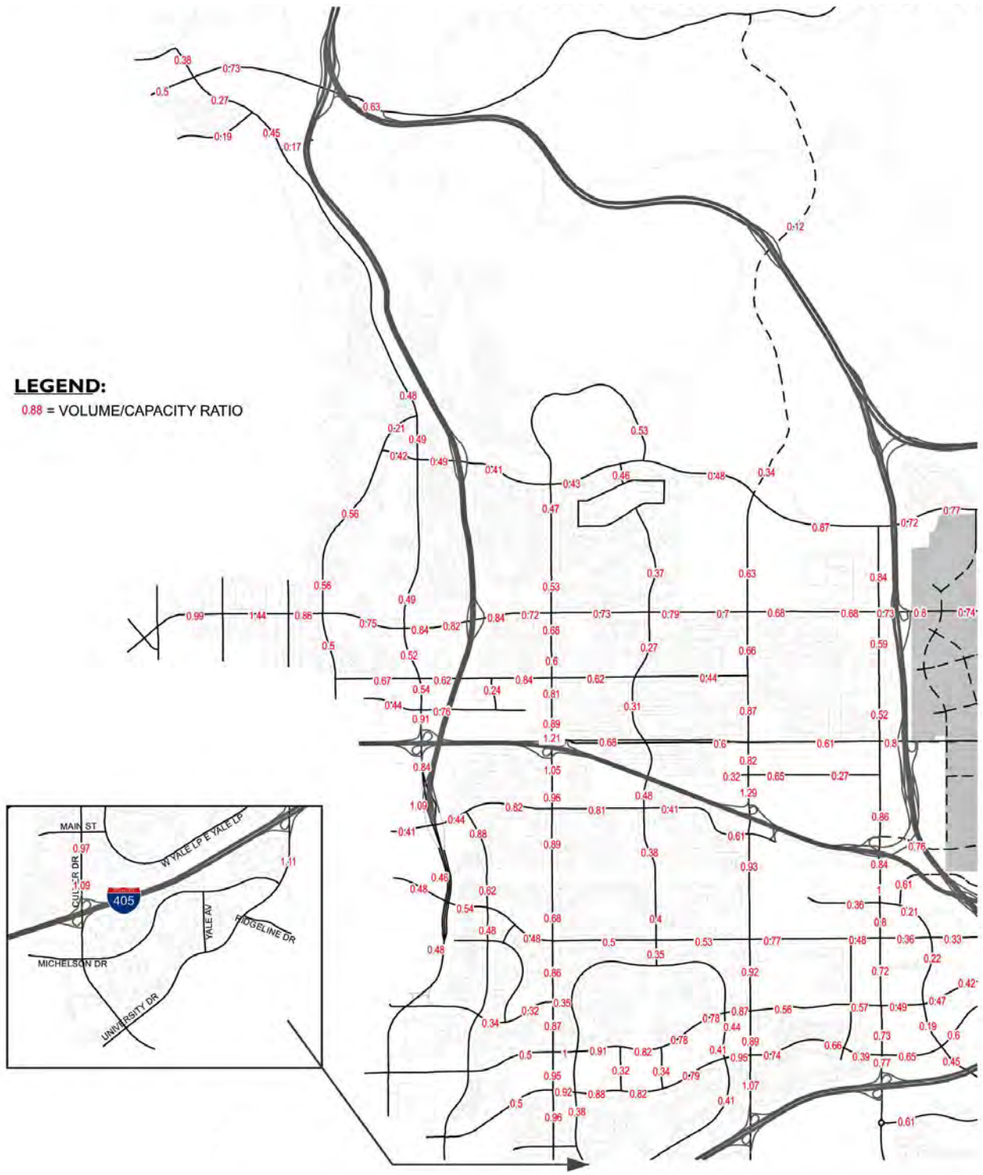
Project Area

0 3,000
Scale (Feet)

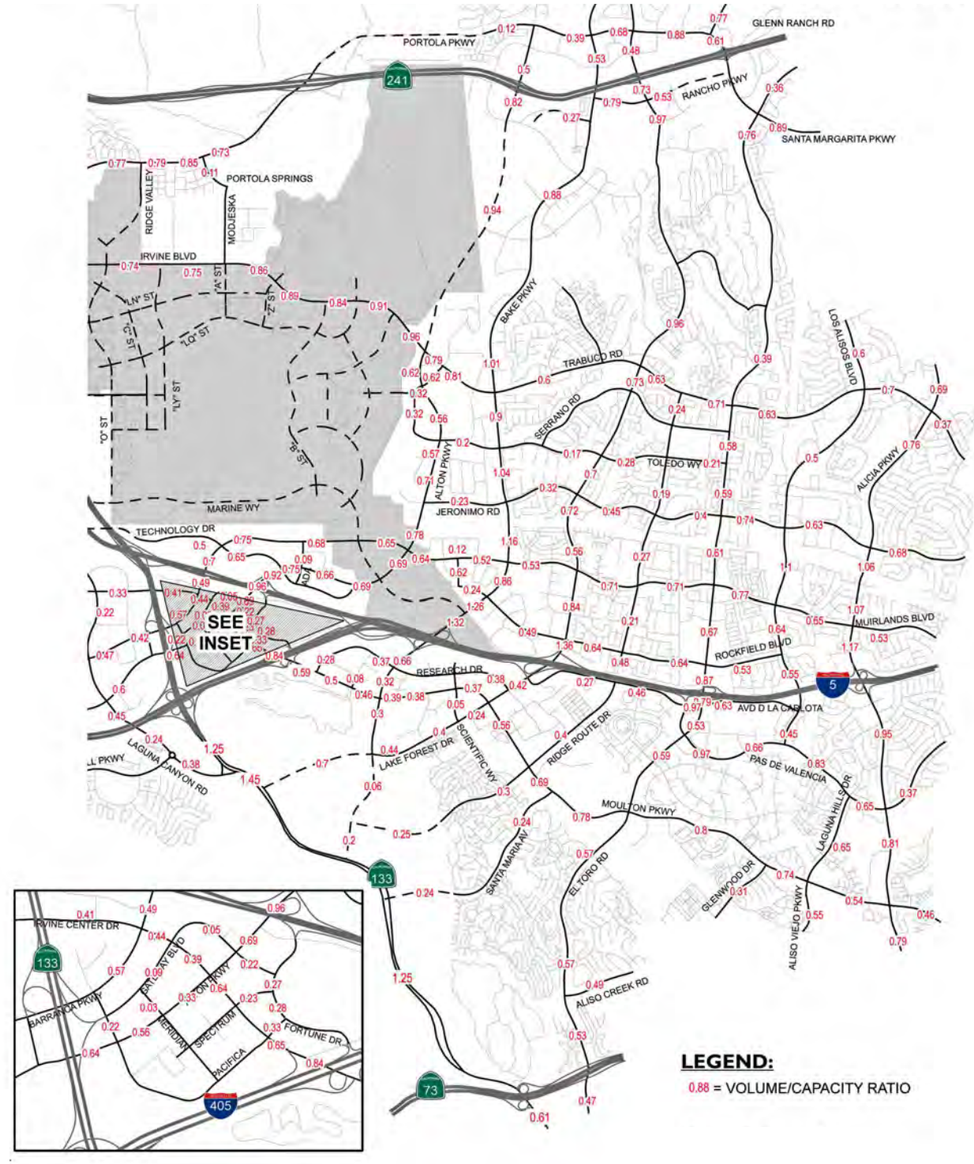
Source: Urban Crossroads 2013

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Post-2030 ADT V/C Ratios with 2012 Modified Project Option 2 (2 of 2)



West Study Area



East Study Area

0 6,000
Scale (Feet)

Source: Urban Crossroads 2013

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To address concerns expressed by Caltrans regarding the performance of freeway/tollway ramp intersections in the immediate vicinity of the Proposed Project Site, the freeway ramp intersections at Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road interchanges have been analyzed using both the HCM methodology and the ICU methodology. The resulting Post-2030 Without Project and 2012 Modified Project Option 2 peak hour levels of service based on the HCM methodology are summarized in Table 8-11 in the Traffic Study (HCM intersection LOS calculation worksheets are included in Appendix 8.6 to the Traffic Study). In addition to the peak hour HCM ramp analysis, a queuing analysis was carried out for the Sand Canyon Avenue/I-5 ramps. For the off-ramps at the Sand Canyon/I-5 interchange, the potential for exiting traffic to back up onto the I-5 mainline was evaluated by performing a detailed queuing analysis. The HCM intersection LOS results presented earlier for the Sand Canyon Avenue/I-5, SR-133/Irvine Boulevard, and SR-133/Trabuco Road ramp intersections based on the HCM methodology provide estimates of the vehicle queue lengths on the off-ramp approaches at each intersection. Table 8-12 in the Traffic Study summarizes the longest 95th percentile queue length at each off-ramp under Post-2030 with the 2012 Modified Project Option 2 peak hour conditions (HCM queuing analysis calculation worksheets are included in Appendix 8.7 to the Traffic Study). The results of the HCM analysis show LOS "E" conditions with or without the 2012 Modified Project at the I-5 NB Ramp /Sand Canyon intersection. A modified lane configuration (restriping to accomplish dual left turn and dual right turn lanes the eastbound approach to the I-5 SB Ramp intersection would avoid vehicle queues backing onto the freeway mainline. LOS "E" conditions also occur at the I-5 SB Ramp /Sand Canyon intersection with the 2012 Modified Project. The ultimate lane configuration would be subject to coordination and agreement between the City and Caltrans.

Post-2030 Peak Hour Freeway/Tollway Ramp Levels of Service, Option 2

Figure 5.12-29 illustrates the interchange locations where freeway/tollway ramps were analyzed based on Post-2030 conditions. The Post-2030 with 2012 Modified Project Option 2 AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 8-13 in the Traffic Study. None of the freeway ramps are forecast exceed adopted impact thresholds with the 2012 Modified Project Option 2 based on Post-2030 conditions.

Post-2030 Peak Hour Freeway/Tollway Mainline Levels of Service, Option 2

The Post-2030 Without Project and 2012 Modified Project Option 2 AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 8-14 in the Traffic Study. Based on the peak hour mainline performance criteria and impact thresholds discussed above, the freeway mainline segment of I-405 northbound, north of Jeffrey is forecast to exceed adopted impact thresholds under the 2012 Modified Project Option 2 scenario in Post-2030 conditions.

Post-2030 Mitigation Summary

In this sub-section, mitigation measures are presented for the intersections identified as being impacted by the 2012 Modified Project based on Post-2030 conditions. It should be noted that the City has established the NITM Program to implement and expedite circulation mitigation measures identified in previous certified CEQA documents. The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for PAs 1, 5, 6, 8, 9, 30, 40 and 51. As established by City Ordinance No. 03-20, the 2011 Approved Project is included in this program and, as such, is required to pay its fair share toward the

List of NITM Improvements included within the established NITM Program. This NITM fee will be updated in accordance with the NITM Ordinance after approval of the 2012 Modified Project. (TRAN 3).

In addition to the PA 30 and PA 51 NITM fair share fees addressed above, the following discusses the specific mitigation measures proposed for the Post-2030 impacts of the 2012 Modified Project identified above. The mitigation measures are designed to address the 2012 Modified Project's impacts by improving the LOS at each impacted location.

Option 1 Impact Locations

Three intersections exceed adopted impact thresholds with the 2012 Modified Project with Option 1:

- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.
- Laguna Cyn. & Old Laguna Cyn

At the Jeffrey Road / Roosevelt intersection, the project mitigation is conversion of the eastbound shared through/right lane into a through lane, and addition of a second right turn lane.

At the Jeffrey Road / Alton Parkway intersection, the project mitigation is provision of an eastbound standard right-turn lane with right-turn overlap phase resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane.

The project mitigation at the Laguna Canyon/Old Laguna Canyon intersection identifies ATMS at this location, subject to approval by the Director of Public Works. An alternate physical improvement is the addition of a fourth northbound through lane. If it is desired to utilize one of these improvement options as a substitution to an identified NITM improvement at this location, this request would be subject to approval by the Director of Public Works in consultation with the NITM Committee. If pending projects are approved, the mitigation improvement will no longer be needed. Table 5.12-13 contains the analysis of Post-2030 Option 1 impact locations with the proposed mitigation:

Table 5.12-13
Post-2030 LOS with 2012 Modified Project
Option 1 Impact Locations with Proposed Mitigation

		2011 Approved Project (Baseline)		*2012 Modified Project*		*With Improvement*	
Intersection	*Peak Hour*	*ICU*	*LOS*	*ICU*	*LOS*	*ICU*	*LOS*
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.91	E	0.88	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90[1]	D	0.91[1]	E	0.89[1]	D
321. Laguna Cyn. & Old Laguna Cyn.	AM	0.92	E	0.94	E	0.89[1]	D
-Alternate improvements	AM					0,82	D

Source: Urban Crossroads, 2012.
[1] ATMS credit (0.05) has been applied.

Project fair share participation in a directional capacity enhancement equivalent to a single general purpose travel lane at one freeway mainline segment (I-405 northbound, north of Jeffrey) mitigates the 2012 Modified Project Option 1 contribution to a cumulative impact at that location.

Option 2 Impact Locations

Post-2030 AM and PM peak hour intersection capacity utilization (ICU) results indicate the same three intersections impacted by the 2012 Modified Project with Option 1 are also impacted with Option 2. At these three locations, the Option 1 mitigation measures (described above) also mitigate Option 2 impacts:

- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.
- Laguna Cyn. & Old Laguna Cyn

Table 5.12-14 contains the analysis of Post-2030 Option 2 impact locations with the proposed mitigation:

Table 5.12-14
Post-2030 LOS with 2012 Modified Project
Option 2 Impact Locations with Proposed Mitigation

Intersection	Peak Hour	2011 Approved Project (Baseline)		2012 Modified Project		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E	0.88	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90[1]	D	0.93[1]	E	0.89[1]	D
321. Laguna Cyn. & Old Laguna Cyn.	AM	0.92	E	0.94	E	0.89[1]	D
-Alternate improvements						0,82	D

Source: Urban Crossroads, 2012.
[1] ATMS credit (0.05) has been applied.

Project fair share participation in a directional capacity enhancement equivalent to a single general purpose travel lane at one freeway mainline segment (I-405 northbound, north of Jeffrey) mitigates the 2012 Modified Project Option 2 contribution to a cumulative impact at that location.

5.12.5.6 2012 Modified Project with Optional Conversion

The 2012 Modified Project also includes the option to convert up to 535,000 square feet of Multi-Use to up to 889 base units and up to 311 DB Units, granted pursuant to State law. The location, type and number of converted units are unknown at this time. This optional conversion is expressly conditioned to stay within the trip parameters of the Heritage Fields Project 2012 GPA/ZC Traffic Study and is subject to further traffic analysis.

5.12.5.7 Rockfield Boulevard MPAH Network, Sensitivity Analysis

Buildout conditions for Options 1 and 2 are analyzed to determine if any level of service deficiencies are created within the study area with the buildout of Rockfield Boulevard as currently included on the Orange County Master Plan of Arterial Highways (MPAH), when compared against the buildout of the proposed project with the deletion of Rockfield Blvd extension to Marine Way. This analysis will be used to process the proposed MPAH amendment to delete the extension of Rockfield to Marine Way. The deletion of the Rockfield extension is subject to coordination with adjacent cities and approval by the OCTA Board of Directors.

In the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed, no additional traffic impacts occur with the 2012 Modified Project with Option 2 on arterial roadway segments, arterial intersections, mainline freeway segments or freeway ramps for Post-2030 conditions. With Option 1, the SR-133 NB Loop On-Ramp at Barranca Parkway is impacted if the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed.

The SR-133 northbound loop on-ramp at Barranca Parkway is not impacted under the 2015 pending plus project condition with the 2012 Modified Project Option 2. The proposed mitigation improvement for this ramp is not a NITM Program improvement. In the event that the MPAH change is not approved and the 2012 Modified Project Option 1 is implemented with construction of the Rockfield extension to Marine Way, the Option 1 Project will also participate on a NITM methodology fair share basis in the conversion of the HOV preferential lane at the on-ramp to a second metered mixed-flow lane.

5.12.5.8 Congestion Management Program Consistency

In addition to the traffic impact analysis outlined above, the Traffic Study analyzes the impacts of the 2012 Modified Project on OCTA's Congestion Management Program (CMP) for Orange County. The goal of the CMP is to ensure that certain key intersections within the CMP Highway System (CMPHS) are operating at acceptable levels. The CMP has been developed to monitor impacts on CMPHS intersections. The CMP Monitoring Checklist for the Land Use Coordination Component can be found in Appendix 9.12 of the Traffic Study.

There are 19 study area intersections within the study area that are monitored as part of the CMP. As indicated in Table 9.12-1 of Appendix 9.12 contained within the Traffic Study, all of the CMP intersections in the study area are forecasted to operate at LOS "E" or better, which is within the CMP performance standard for CMP intersections, based on an analysis of short-term (the year 2015 with-project scenario in this case) traffic conditions that is required by the CMP. Information included in Table 9.12-1 from Appendix 9.1 of the Traffic Study is reproduced below.

Table 5.12-15
Year 2015 LOS With 2012 Modified Project Option 2
at CMP Intersections within the Study Area

		2012 Modified Project, Option 2			
		AM Peak Hour		PM Peak Hour	
Intersection	Jurisdiction[2]	ICU[1]	LOS	ICU[1]	LOS

125. Jamboree Rd. at Irvine Blvd.	Tustin	0.78	C	0.69	B
128. Jamboree Rd. at I-5 NB Ramps	Irvine/Tustin	0.66	B	0.69	B
129. Jamboree Rd. at I-5 SB Ramps	Irvine	0.70	B	0.71	C
133. Jamboree Rd. at Edinger Ave.	Tustin	0.40	A	0.65	B
159. SR-261 SB Ramps at Irvine Blvd.	Irvine	0.47	A	0.60	A
160. SR-261 NB Ramps at Irvine Blvd.	Irvine	0.61	B	0.43	A
316. SR-133 SB Ramps at Irvine Blvd.	Irvine	0.50	A	0.52	A
317. SR-133 NB Ramps at Irvine Blvd.	Irvine	0.59	A	0.51	A
322. Laguna Canyon Rd. at SR-73 NB Ramps	Laguna Beach	0.73	C	0.72	C
323. Laguna Canyon Rd. at SR-73 SB Ramps	Laguna Beach	0.35	A	0.42	A
357. Enterprise Dr. at Fortune Dr.	Irvine	0.47	A	0.47	A
358. ICD at Enterprise Dr.	Irvine	0.84	D	0.74	C
359. ICD at I-405 SB Ramps	Irvine	0.78	C	0.75	C
394. El Toro Rd. at I-5 NB Ramps	Lake Forest	0.73	C	0.88	D
396. El Toro Rd. at Avenida Carlota	Laguna Hills	0.60	A	0.87	D
398. El Toro Rd. at Moulton Pkwy.	Laguna Woods	0.71	B	0.80	C
400. El Toro Rd. at SR-73 NB Ramps	Laguna Beach	0.56	A	0.62	B
401. El Toro Rd. at SR-73 SB Ramps.	Laguna Beach	0.45	A	0.64	B
418. El Toro Rd. at Trabuco Rd.	Lake Forest	0.69	B	0.75	C

Source: Urban Crossroads, 2012.
[1] ICU reported as a volume-to-capacity ratio.

IMPACT 5.12-2: THE MODIFIED PROJECT COMPLIES WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [IMPACT T-6]

Impact Analysis: Various Class 1 (Off-Street) and Class 2 (On-Street) bikeways through the Proposed Project Site have been anticipated in the City of Irvine General Plan Trails Network. It is anticipated that the proposed development in the 2012 Modified Project would expand opportunities for bikeway and pedestrian facilities, with additional bikeways in Districts 5 and 6, and improved connectivity to the new high school, to be considered in conjunction with future maps/master plans and amendments to the Master Landscape and Trails Plan.

Figure 5.12-32, *Project Area Bikeways and Trails,* illustrates the potential on-site and adjacent bikeways and trails for the Project area. In addition to the extensive network of trails already approved as part of the 2011 Approved Project, interconnected networks of two-lane roadways (local streets, local collectors and commuters) could link the on-site schools, shopping centers, employment areas, and public facilities throughout the core of Combined PA 51.

The trail system would be designed to utilize crosswalks at traffic signals, stop signs and roundabouts in order to provide safe crossings of roadways at intersections. At mid-block crossings of two-lane roads, curb extensions (narrowing) and ped signs are recommended to improve safety for pedestrians.

Moreover, various transit services to the Proposed Project Site have been anticipated in the Irvine Transit Vision, a framework for bus and shuttle services that connect with OCTA local and regional bus operations and regional rail services via the Irvine Metrolink Station. The 2012 Modified Project expands opportunities for such services to occur by providing a continuous Secondary arterial connection along "O" Street / Ridge Valley from Marine Way to Portola Parkway, and a direct north-south Commuter roadway connection along "B" Street from Irvine Boulevard to Marine Way near the Irvine Metrolink Station.

Specific details regarding the expansion of the trail network would be considered in conjunction with future maps/master plans and amendments to the Master Landscape and Trails Plan.

Figure 5.12-33, *Project Area Transit Features*, illustrates potential transit services for the Proposed Project Site which are comparable to the routes presented in the recommended Preferred Alternative and Complementary OCTA Services scenarios evaluated in the Irvine Transit Vision report. The potential service routes are conceptual; the routing, funding and operation of future City or OCTA services are yet to be determined. The purpose of this concept planning effort is to determine potential transit stop locations and ensure that physical site planning for the 2012 Modified Project districts will accommodate appropriate pedestrian connectivity to the potential stop locations.

Thus, as discussed in more detail in Section 5.7, *Land Use*, the 2012 Modified Project achieves goals of the City's General Plan for effective non-motorized transportation through enhanced local street connectivity, an extensive network of walkways and bikeways, and the arrangement of land uses for access by various modes of transportation.

5.12.6 Cumulative Impacts

The geographic scope for traffic includes cumulative growth projections for Orange County that are reflected in Orange County Projections ("OCP")-2004, as modified by more recent data as described in Section 4.5, *Cumulative Impact Assumptions*, of this DSSEIR. Past projects in Orange County cities and unincorporated areas have converted undeveloped and agricultural land to urban uses resulting in area residential and employment population increases and associated demand for expansions of roadway systems. The contribution of these past projects to area growth is also reflected in OCP-2006 and OCP-2010. As described in Section 5.9, *Population and Housing*, the Orange County Projections are prepared, and periodically updated, by the Center for Demographic Research at California State University, Fullerton, based on a Memorandum of Understanding with the Orange County Council of Governments (OCCOG). General Plan information from each jurisdiction within Orange County is used in the development of growth projections for the County. The OCP growth projections, as adopted by the OCCOG, are then incorporated into traffic models approved for use by the Orange County Transportation Authority (i.e., the Orange County Transportation Analysis Model - OCTAM), which provides the countywide traffic model basis for more localized traffic models, such as that used by the City (i.e., the Irvine Transportation Analysis Model - ITAM). As such, the traffic modeling for future conditions includes areawide growth as anticipated in adopted growth projections (e.g., OCP-2004).

Because the modeling used for the traffic analyses contained in this Section 5.12, *Transportation and Traffic*, incorporates OCGP-2004 projections, the analyses assess the traffic impacts of all cumulative development reasonably anticipated by Year 2015, Year 2030 and Post-2030. As discussed above, most intersections and roadway/freeway/tollway/ramp segments will operate at acceptable levels of service with the existing or planned improvements, although some may require additional improvements, as described in Section 5.12.6, Applicable Mitigation Mitigation Measures from the 2011 Certified EIR and Section 5.12.9, *Additional Mitigation Measures for the 2012 Modified Project*. It should be noted, however, that it has been anticipated in the traffic analysis that the cumulative impact of 2012 Modified Project traffic along with other regional growth at the identified ramp and freeway locations will be largely mitigated through a combination of regional programs that are the responsibility of other agencies such as Lake Forest and CalTrans. The Applicant will contribute its fair share to these regional programs, as applicable. However, if these programs are not implemented by the agencies with the responsibility to do so, the cumulative freeway/tollway ramp impacts would remain significant and unavoidable. Under these circumstances, the 2012 Modified Project could result in a cumulatively significant traffic impact that may remain significant and unavoidable.

Pending Projects Sensitivity Analysis

Six future "pending" scenarios (2015, 2030, and Post 2030, each with the 2012 Modified Project Options 1 and 2) are analyzed to determine if any additional level of service deficiencies are created within the study area with pending development projects and changes to the MPAH. Pending with Project scenarios are compared against 2011 Approved Project conditions (with the pending projects) so that any deficiencies on the study area circulation system associated with the pending projects in combination with the 2012 Modified Project can be identified.

Although several arterial roadway segments exceed their theoretical daily capacity with or without the pending-plus-project scenario, they are projected to operate at acceptable levels of service during peak hours for all future conditions (2015, 2030, and Post-2030 conditions) included in the sensitivity analysis.

2015 With Pending Projects, Options 1 and 2

The 2015 AM and PM peak hour intersection capacity utilization (ICU) results indicate that none of the intersections are forecast to exceed adopted thresholds with the pending-plus-project scenario for 2012 Modified Project Option 1. Although several mainline freeway segments and freeway ramps are projected to operate at LOS F during peak hours, the pending-plus-project 2015 scenario for 2012 Modified Project Option 1 does not cause traffic to exceed adopted impact thresholds.

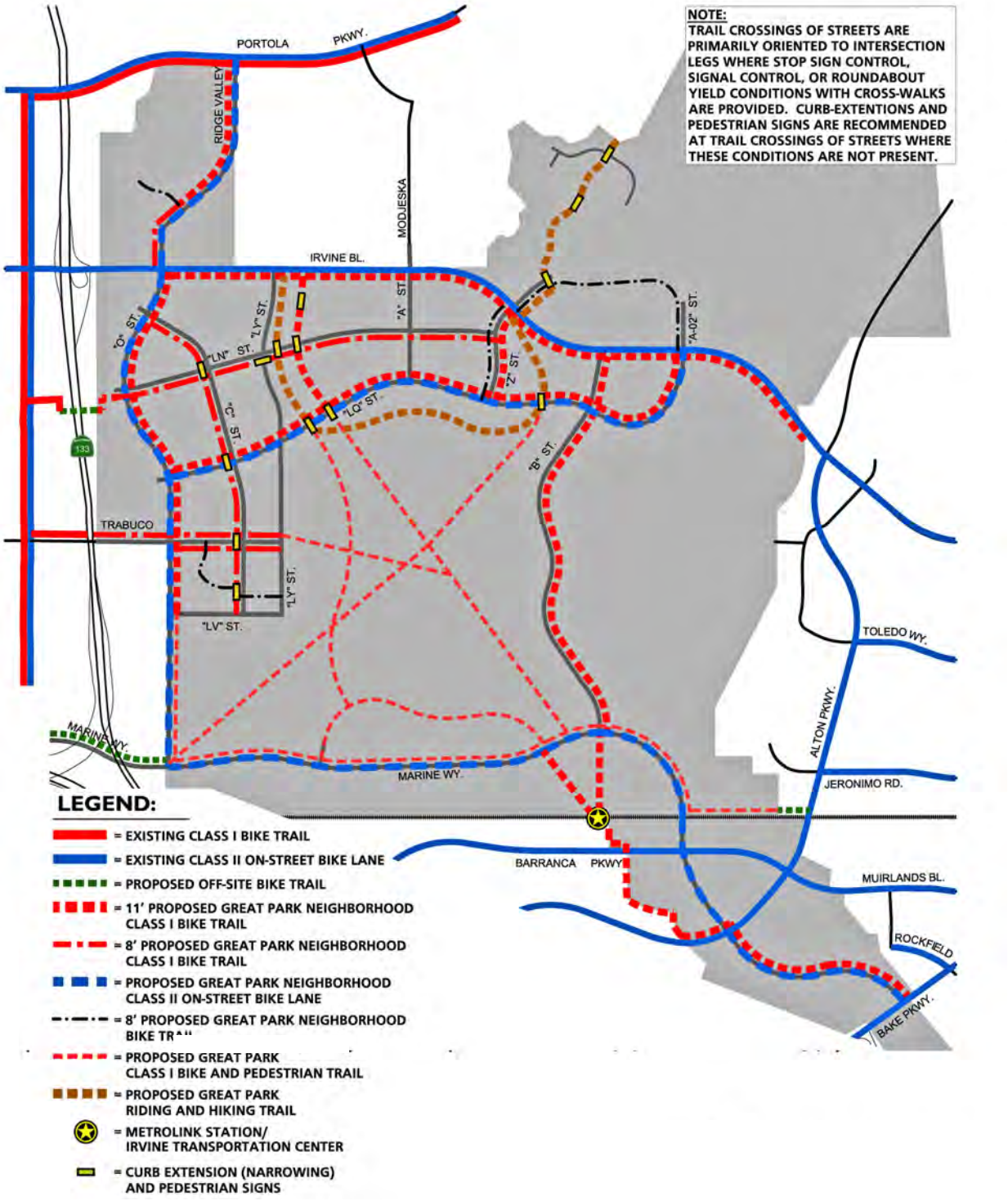
The SR-133 NB loop on-ramp from Barranca Parkway is forecast to exceed adopted impact thresholds for the Year 2015 with the pending-plus-project 2012 Modified Project Option 2 conditions. The project mitigation at this location is fair share participation (on a NITM methodology fair share basis) in converting the HOV preferential lane at the on-ramp to a second metered mixed-flow lane (capacity = 1,500). This fair share improvement results in a v/c = 0.83 (LOS "D"). No intersections are forecast to exceed adopted thresholds with the pending-plus-project scenario for 2012 Modified Project Option 2. Although several mainline freeway segments are projected to operate at LOS F during peak hours, the pending-plus-project 2015 scenario for Option 2 does not cause traffic to exceed adopted impact thresholds.

2030 With Pending Projects, Options 1 and 2

For 2030 pending-plus project conditions, there are seven intersection impacts for Option 1, six intersection impacts for Option 2 (six are previously identified locations with no additional mitigation for the pending condition), one ramp impact for Options 1 and 2 (previously identified location with no additional mitigation for the pending condition), and one directional freeway mainline fair share impact for Options 1 and 2. Refer to Table 9-25 of the Traffic Study for specific impact locations.

If the pending projects are approved, 2012 Modified Project Options 1 and 2 mitigation at the El Toro Road / Portola Parkway intersection consists of fair share participation in the addition of a southbound right turn overlap phase (a fully funded LFTM improvement).

Project Area Bikeways and Trails



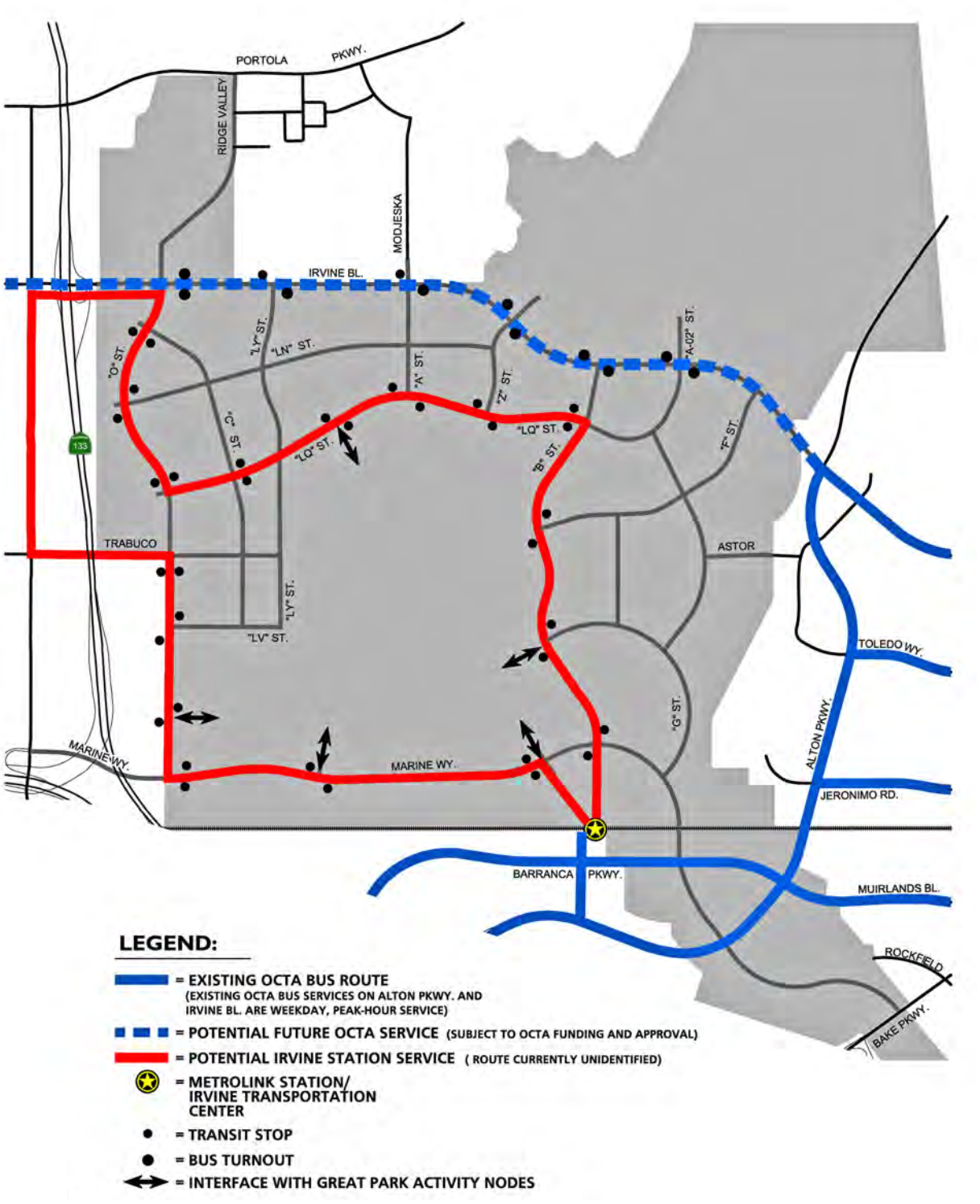
Source: Urban Crossroads 2013

Note: For illlustrative purposes only. Not intended to depict the approved Master Landscape and Trails Plan.

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Project Area Transit Features



Source: Urban Crossroads 2013

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If the pending projects are approved, the 2012 Modified Project will be required to contribute its fair share for a directional capacity enhancement (equivalent to a single general purpose lane) at the freeway mainline segment of the I-5 Northbound, n/o Culver in order to mitigate the 2012 Modified Project Options 1 and 2 cumulative impacts. Per NITM, the fair share of improvement cost is calculated based the incremental daily volume change from the 2011 Approved Project to the 2012 Modified Project, divided by all traffic at that improvement location, including existing and future traffic.

Post-2030 With Pending Projects, Options 1 and 2

For post-2030 pending project conditions, there are two intersection impacts for Options 1 and 2 (previously identified locations with no additional mitigation for the pending condition), one ramp impact for Options 1 and 2 (previously identified location with no additional mitigation for the pending condition) and no directional mainline impacts. Refer to Table 9-26 of the Traffic Study for specific impact locations.

5.12.7 Applicable Mitigation Measures from the 2011 Certified EIR

The following mitigation measures were included in the 2011 Certified EIR. These mitigation measures are also included in the 2012 Modified Project, and additional mitigation measures have been added for the purposes of this DSSEIR. This DSSEIR proposes to make certain modifications to the mitigation measures adopted by the City for the Approved Project. In addition, the language of TRAN 1 from the Certified EIR is proposed to be modified as indicated below. Modifications to the original mitigation measure are identified in ~~strikeout~~ text to indicate deletions and <u>underlined</u> to signify additions.

TRAN1 was modified by the City and approved as shown with 2nd AVTTM 17008 (PC Resolution 11-3109). References to Existing Planning Area 30 are proposed to be removed since the 2012 Modified Project's proposed GPA/ZC consolidates Existing PAs 30 and 51 into one PA to be designated Combined PA 51.

TRAN1 Prior to the approval of any final map <u>of a subsequent subdivision map</u> (other than a financing and conveyance map) ~~allocating~~ <u>for any land use, excluding single family land uses (single family land use includes single family detached and single family attached projects), parks, schools, daycare, and religious institutions, that allocates</u> building intensity ~~within Planning Areas 30 and 51, and prior to issuances of any building permits for permanent improvements~~ within <u>Combined</u> Planning Area~~s 30 and~~ 51, the landowner or subsequent project applicant shall either (i) apply for annexation of any areas within the final map to the Irvine Spectrum Transportation Management Association (TMA) ("Spectrumotion") in accordance with Article X of the recorded Declaration of Covenants, Conditions and Restrictions (CC&Rs) for the Irvine Spectrum TMA, including any supplementary or amended CC&Rs, to reduce traffic, air quality and noise impacts or (ii) develop and implement a similar transportation management plan containing the elements and meeting the criteria described below as approved by the Director of Public Works. <u>The transportation management plan shall be implemented via payment of assessment dues to an organization similar to Spectrumotion for all land uses, with the exceptions noted above. While affordable housing units will be included, their assessment fees will be covered by other remaining adjacent land uses. The implementation (payment of assessment dues) for either option described above shall occur prior to issuance of building permit(s)</u>:

Transportation Management Plan (TMP)

The development and implementation of a Transportation Management Plan is an identified mitigation measure to manage transportation access for Combined Planning Area~~s 30 and~~ 51. This document summarizes the key elements of the TMP.

A. Introduction

The purpose of this document is to provide an outline for a comprehensive TMP for the Planning Area~~s 30 and~~ 51 ("Great Park TMP"). This report is not intended to provide the specific details of the plan, but rather to highlight the key components and provide direction for subsequent detailed planning and implementation activities. When preparation of the TMP is undertaken, all of the agency and stakeholders will be invited to provide input.

The applicant may elect to annex Combined PA 51 ~~and a portion of Planning Area 30~~ into the Irvine Spectrum Transportation Management Association (Spectrumotion). Spectrumotion is a private, non-profit Transportation Management Association (TMA) formed to reduce traffic congestion in Irvine Spectrum. Spectrumotion promotes, markets, and subsidizes alternatives to solo-commuting and assists the business community in complying with trip reduction related requirements. Membership is mandatory to property owners with deed restrictions requiring participation in the TMA. Membership dues provide the funding for the Association and its programs, which offer a variety of employer and commuter services focused on reducing vehicular trip generation.

In the event that the applicant elects not to annex into Spectrumotion, a TMP similar to that provided by Spectrumotion will be developed and implemented. This document sets forth the components of the TMP should it be necessary.

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services ((i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

C. Transportation Management Plan Implementation

As part of the TMP, a process will be established to monitor its effectiveness in reducing peak hour trip generation in the Combined PA ~~30 and~~ 51. Provision shall be made for the Plan to be modified as appropriate to enhance its effectiveness.

TRAN2 Following adoption of a land use plan and circulation plan for the Great Park property and before the issuance of any building permits within the base property, the City of Irvine shall request a cooperative study with OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH). Marine Way, Trabuco Road from the SR-133 toll way to "O" Street (formerly College Road), and Ridge Valley (formerly "Y" Street) should be included on the MPAH.

TRAN3 Prior to issuance of the first building permit for dwelling units or non-residential square footage, a Fee Reallocation Study shall be completed to recalculate the NITM Fees reflecting any fair share allocation modifications. The landowner or subsequent property owner shall submit the Fee Reallocation Study under a separate cover to be approved by the Director of Public Works, in consultation with the NITM Advisory Committee.

TRAN4 Prior to approval of the last final map for the ~~2011 Approved~~2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the landowner or subsequent property owner shall pay ~~its fair share of~~ the costs of the following mitigation in an amount to be mutually agreed upon between the landowner or subsequent property owner and the City and reflective of the costs of the mitigation at the time of payment:

- 286 Jeffrey Road & Roosevelt: Restripe the existing eastbound approach to provide a shared through/ right turn lane within the existing right-of-way.

- 361 Bake Parkway & Portola Parkway: Restripe the existing northbound approach to provide a shared through/left lane (which currently exists as a through lane) within the existing right-of-way and modify the existing traffic signal operation for a north/south split phase signal operation. Alternatively, restripe the existing northbound approach to provide dual left turn lanes in combination with a single through lane and single right turn lane within the existing right-of-way, and modify signal operation to include northbound right turn overlap phase.

- 374 Lake Forest & Portola Parkway (Pending Projects analysis impact): Convert the existing northbound approach from de-facto right-turn to a dedicated right-turn, and modify the existing traffic signal operation to include right turn overlap phase.

5.12.8 Level of Significance Before Additional Mitigation

The preceding analysis sets forth the locations that would have significant traffic impacts without mitigation in the 2012 Modified Project scenario for the Year 2015, Year 2030 and/or Post-2030.

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: Impact 5.12-2.

Without mitigation, like the 2011 Approved Project, the following impacts would be **significant**:

- **Impact 5.12-1** Project generated traffic would result in significant impacts at a number of intersections in the Year 2015, Year 2030 and Post-2030 conditions.

5.12.9 Additional Mitigation Measures for the 2012 Modified Project

TRAN5 **(For specific Project-related non-NITM improvements):** In conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evalution to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 16. Newport & Irvine – Modification of signal to provide a northbound right turn overlap phase. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 54. Browning & Irvine – Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)

- 221. Culver & Bryan – Addition of a westbound defacto right turn lane. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 286. Jeffrey & Roosevelt – Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)

- 290. Jeffrey & Barranca – Application of PA9C-identified ATMS. (2030. Options 1 & 2)

- 291. Jeffrey & Alton – Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (Post-2030, Options 1 & 2)

- 303. Sand Canyon & I-5 NB ramp/Marine Way – Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)

- ~~306. Sand Canyon & Oak Canyon - Fair Share contribution towards – conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right-turn lane into a free-right turn lane, as identified in the PA40/12 GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.~~

- 321. Laguna Canyon & Old Laguna Canyon – Application of ATMS, subject to approval by the Director of Public Works. Alternate improvement is the addition of a fourth northbound through lane. (Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- 366. Bake & Rockfield – Fully funded LFTM improvement: Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)

Prior to approval of the first tentative tract/tentative parcel map in District's 2, 3, 5, or 6, the landowner or subsequent project applicant shall prepare a Year 2015, Year 2030 and Post-2030 (or equivalent) focused analysis of the Sand Canyon/ Oak Canyon intersection for the review by the City of Irvine to establish the Combined PA 51 project's fair share responsibility towards the following improvements or mutually acceptable alternative improvements at the Sand Canyon/Oak Canyon intersection if the study re-verifies their need:

- 306. Sand Canyon & Oak Canyon - Fair Share contribution towards – conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right-turn lane into a free-right turn lane, as identified in the PA40/12 GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

The Fair share contribution of the project will be based on the same methodology for determining the fair share as utilized in the NITM Program. The traffic study shall assume land use development based on the then existing General Plan and any pending development projects as of the date of the approved scope of work for such a study.

TRAN6 **(For specific Project-related NITM improvements):** The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for City of Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established NITM Program. The following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca – Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)

- 424. Los Alisos & Rockfield – Addition of a southbound right turn lane. (2030, Option 1) Improvement no longer needed if Pending projects are approved.

- I-5 Northbound Off-ramp to Jamboree – Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030, Option 1)

TRAN7 **(If pending projects are approved, Project-related non-NITM improvements):** In the event that all of the pending (not approved) projects analyzed are approved and in conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. The TTM/TPM traffic study shall include a re-evalution to determine whether the improvements identified below and/or other traffic improvements, if any, are necessary based on updated traffic forecasts. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 54. Browning & Irvine – Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)

- 286. Jeffrey & Roosevelt – Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)

- 290. Jeffrey & Barranca – Application of PA9C-identified ATMS.

- 291. Jeffrey & Alton – Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (2030 & Post-2030, Options 1, Post-2030, Option 2)

- 303. Sand Canyon & I-5 NB ramp/Marine Way – Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)

- 366. Bake & Rockfield – Fully funded LFTM improvement: Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)

- 417. El Toro & Portola – Fully funded LFTM improvement: Addition of a southbound right turn overlap phase. (2030, Options 1 & 2)

TRAN8 **(If pending projects are approved, For specific Project-related NITM improvements):** The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for City of Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established NITM Program. In the event that all of the pending (not approved) projects analyzed are approved, the following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca – Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)

- I-5 NB Off-ramp to Jamboree – Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030 & Post-2030, Option 1 & 2)

TRAN9 **(Caltrans Fair Share):** Prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- I-5 Northbound, north of Culver – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)

- I-5 Northbound, north of Jeffrey – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- I-405 Northbound, north of Jeffrey – Directional capacity enhancement equivalent to a single general purpose lane. (2030 and Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

TRAN10 **(If pending projects are approved, Caltrans Fair Share):** In the event that all of the pending (not approved) projects analyzed are approved, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- SR-133 northbound loop on-ramp at Barranca Parkway – Conversion of the HOV preferential lane to a second metered mixed-flow lane (2015, Option 2)

- I-5 Northbound, north of Culver – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)

TRAN11 **(Rockfield MPAH Amendment)** The City of Irvine shall submit a request to OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH) to eliminate the extension of Rockfield Boulevard from the eastern project boundary to Marine Way.

TRAN12 **(If Rockfield MPAH Amendment not approved by OCTA)** In the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed, and in addition to previously identified Post-2030 Option 1 improvements, the land owner or subsequent property owner shall enter into a fair share agreement with the City of Irvine and shall make a good-faith effort to enter into a fair share agreement with Caltrans to establish its fair share allocation towards the future implementation of the conversion of the HOV preferential lane at the SR-133 northbound loop on-ramp at Barranca Parkway to a second metered mixed-flow lane. It may not be possible to successfully negotiate the agreement with Caltrans. The fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine. For Option 2, the mitigations as indicated in TRAN5 through TRAN10 remain unchanged in the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed.

5.12.10 Level of Significance After Mitigation

The 2011 Certified EIR concluded that with the 2011 Approved Project all intersections and roadway/freeway/tollway/ramp segments would operate at acceptable levels of service with the existing or planned improvements. However, the traffic analysis assumed that the cumulative impact of project traffic along with other regional growth at the identified ramp and freeway locations will be mitigated through a combination of regional programs that are the responsibility of other agencies. Therefore, the 2011 Certified EIR concluded that cumulative freeway/tollway ramp impacts would remain significant and unavoidable if these programs are not implemented by the agencies with the responsibility to do so.

Traffic impacts of the 2012 Modified Project have been identified by analyzing the study area circulation system based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. In some cases, new project impacts that were not mitigated by improvements identified in the North Irvine Transportation Mitigation (NITM) Program have been identified for project development scenarios. Recommended mitigation measures for each impacted location are presented above. If there are intersections in other jurisdictions where identified improvements may not be feasible due to cost, right-of-way concerns, or community opposition, traffic impacts could remain significant and unavoidable.

Cities of Lake Forest, Laguna Woods, Mission Viejo and County of Orange Intersections and Arterial Segments

Inasmuch as the primary responsibility for approving and/or completing certain improvements located outside of Irvine lies with agencies other than the City (i.e., City of Lake Forest, Laguna Woods, Mission Viejo, Orange County, and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the City's control (i.e., the City cannot undertake or require improvements outside of Irvine's jurisdiction). Should that occur, impacts relating to traffic generated by the project would remain significant.

The City adopted the NITM Program to establish a funding mechanism for the transportation improvement mitigation measures identified in the EIRs for three future development projects in north Irvine; 1) Spectrum 8/PA40, 2) Irvine Northern Sphere Area (PAs 5B, 6, 8A and 9), and 3) the Orange County Great Park. This program will contribute to the improvement of facilities within Irvine and a fair-share to improvements outside Irvine. The City acknowledges the fair-share cost of improvements to those facilities; however, the adjacent Cities have full control over implementing the identified improvements under their jurisdiction. If improvements are not completed for reasons beyond the City's control, the 2012 Modified Project's traffic impacts would remain significant.

Caltrans Main-Line Segments and Ramps

State highway facilities within the study area are not within the jurisdiction of the City. Rather, those improvements are planned, funded, and constructed by the State of California. OCTA's Renewed Measure M provides a potential funding source and identifies general improvements on the I-5 Freeway within the study area and were analyzed at their recommended buildout in the traffic study for the 2012 Modified Project.

The City adopted the NITM Program to establish a funding mechanism for the transportation improvement mitigation measures identified in the Environmental Impact Reports (EIRs) for three future development projects in north Irvine; 1) Spectrum 8/PA40, 2) Irvine Northern Sphere Area (PAs 5B, 6, 8A

and 9), and 3) the Orange County Great Park. This program is specifically in place to contribute to the improvement of facilities within Irvine and a fair-share to improvements outside Irvine. The City acknowledges the fair-share cost of improvements to Caltrans facilities; however, Caltrans has full jurisdiction toward implementing the identified improvements under its jurisdiction.

While potential impacts to the freeway mainline segments and ramps have been evaluated, implementation of the transportation improvements to Caltrans facilities listed above is the primary responsibility of Caltrans. While Caltrans has recognized that private development has a role to play in funding fair share improvements to impacts on the I-5, I-405, SR-133, and SR-241, Caltrans has not adopted a program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines and only Caltrans has jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that developer fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. However, a number of funding programs are in place in Orange County to assist in improving and upgrading the regional transportation system. If these programs are not implemented by the agencies with the responsibility to do so, the project's freeway/tollway ramp and mainline impacts would remain significant and unmitigated.

Consequently, like the 2011 Approved Project, Impact 5.12-1 are considered **significant and unavoidable**.

5.13 UTILITIES AND SERVICE SYSTEMS

This Section of the DSSEIR addresses the potential impacts of the 2012 Modified Project as compared to the 2011 Approved Project on utilities and service systems including: water, wastewater, solid waste, electricity, natural gas, and telecommunications. The analysis in this Section is based in part on the Service Provider Correspondence contained in Appendix H of this DSSEIR. Storm drainage systems, and impacts to such systems, are discussed in Section 5.6 *Hydrology and Water Quality*, of this DSSEIR and are not discussed further in this Section.

Existing conditions information presented in this Section is based on project-specific facilities reports and coordination with affected public utility agencies. Specific references are identified as relevant. The service provider for each of the public utilities analyzed in this Section of the DSSEIR is noted parenthetically:

- Water Supply and Distribution Systems (Irvine Ranch Water District)
- Wastewater Treatment and Collection (Irvine Ranch Water District)
- Solid Waste (OC Waste & Recycling)
- Electricity (Southern California Edison)
- Natural Gas (Southern California Gas Company)
- Telecommunications (AT&T and Cox Communications Orange County, Inc.)

The analysis in this Section is based in part on the Service Provider Correspondence contained in Appendix H of this DSSEIR and on the following technical reports:

- Sewer and Water Master Plan Study Heritage Fields Project 2012 General Plan Amendment and Zone Change, RBF Consulting, June 6, 2012.
- Planning Areas 30 & 51 Great Park/Great Park Neighborhoods Sub-Area Master Plan (2011 SAMP) Update, Irvine Ranch Water District, September 20, 2011.
- 2010 Urban Water Management Plan, Irvine Ranch Water District, June 2011.
- Water Resources Master Plan, Irvine Ranch Water District, March 2002, supplemented January, 2004.
- Regional Urban Water Management Plan, Metropolitan Water District of Southern California, November 2010.
- Water Supply Assessments for the Great Park Neighborhoods, Irvine Ranch Water District, May 2011.
- Water Supply Assessment for the Heritage Fields Project 2012 GPA/ZC, Irvine Ranch Water District, June 2012.

- Integrated Water Resources Plan 2010 Update, Metropolitan Water District of Southern California, 2010.

- Orange County Water District, Water Master Plan Report, April 1999.

Complete copies of the Sewer and Water Master Plan Study, the 2011 SAMP Update and the Water Supply Assessment are included in Appendices J, K and L, respectively.

5.13.1 Water Services

5.13.1.1 Environmental Setting

The Irvine Ranch Water District ("IRWD") provides potable and non-potable water service to the Proposed Project Site. IRWD is a multiservice agency that provides potable and non-potable water supply and wastewater collection, treatment, and disposal services to a population of approximately 266,000, within an area covering 84,610 acres (132 square miles). IRWD's service area encompasses Irvine; parts of unincorporated Orange County north and south of Irvine; parts of the Cities of Orange, Tustin, Santa Ana, and Costa Mesa west of Irvine; part of the City of Newport Beach south of Irvine; and part of the City of Lake Forest east of Irvine. IRWD is a member agency of the Orange County Water District ("OCWD"), and is the largest constituent agency of the Municipal Water District of Orange County ("MWDOC") (IRWD 2005). MWDOC in turn, is a member agency of the Metropolitan Water District of Southern California ("MWD"), a consortium of 26 cities and water districts that ~~supplies~~supply 19 million people with water including water from the State Water Project ("SWP").

IRWD prepares two planning documents to guide water supply decision making. IRWD's principal planning document is its Water Resources Master Plan ("WRMP"), which is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD's most recent WRMP is dated March 2002, and was supplemented in January 2004. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by state statute. The UWMP is based on the WRMP, but contains defined elements that are required by Water Code section10631 *et seq*., and, as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update to that document was adopted in June 2011.

Water Supply

Water available to IRWD comes from groundwater pumped from the Orange County groundwater basin (including the Irvine Subbasin); captured local (native) surface water; recycled wastewater, and supplemental imported water supplied by MWD through the MWDOC. The supply-demand comparisons in this section are broken down among the various sources, and are further separated into potable and nonpotable water.

For comparison with demands, water supplies are classified as "currently available" or "under development."

- Currently available supplies are those presently operational and those that will be operational within the next several years. Supplies expected to be operational in the next several years are those that have completed or substantially completed the environmental and regulatory review

process and have the necessary contracts (if any) in place to move forward. These supplies are in various stages of planning, design, or construction.

- In general, supplies under development may necessitate the preparation and completion of environmental documents, regulatory approvals, and/or contracts prior to full construction and implementation.

A list of the currently available and under development supplies of both potable and nonpotable water can be found in the Water Supply Assessment ("WSA") prepared for the 2012 Modified Project (Appendix L of this DSSEIR). The WSA has been prepared in compliance with SB 610 and SB 221 to identify adequate water supplies to serve the 2012 Modified Project. Due to the number of contracts, statutes, and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items to this DSSEIR or the WSA, they are identified by title and summarized in Section 2(b) of the WSA, Written Contracts/Proof of Entitlement. Copies of the items summarized are available for review at the City and can also be obtained from IRWD.

IRWD is also evaluating the development of additional supplies that are not included in either currently available or under development supplies for purposes of the WSA. As outlined in the WRMP, prudent water supply and financial planning dictates that development of supplies be phased over time, consistent with the growth in demand.

Table 5.13-1, below, shows IRWD's water supply sources. IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area.

Potable Water Supply

Less than 25 percent of IRWD's domestic water is purchased from the MWD and imported from the Colorado River via the Colorado River Aqueduct and the SWP. The majority of IRWD's imported potable water is supplied from a single source, the MWD Diemer Filtration Plant, located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the MWD lower feeder and SWP water through the Yorba Linda Feeder. In fiscal year 2011-2012, g~~G~~roundwater provided ~~now makes up~~ approximately 70 ~~75 to 80~~ percent of IRWD's total potable water supply ~~depending on a series of local wells, including Dyer Road Wellfield Project and the IRWD's Deep Aquifer Treatment System ("DATS")~~.

IRWD's total existing potable water supply and demand (without the 2012 Modified Project, but with the 2011 Approved Project) are shown in Table 5.13-2. Forecasts indicate that IRWD will continue to have a surplus supply of potable water through the year 2032 under Normal-, Single Dry- and Multiple Dry-Year conditions.

Table 5.13-1
IRWD's Existing Sources of Water Supply

	Max Day (cfs)	Avg. Annual (afy)	Annual by Category (afy)
Current Supplies			
Potable – Imported			
East Orange County Feeder No. 2	41.4	16,652[1]	-
Allen-McColloch Pipeline*	64.7	26,024[1]	-
Orange County Feeder	18.0	7,240[1]	49,916
Potable – Groundwater			
Dyer Road Wellfield	80.0	28,000[2]	-
OPA Well	1.4	1,000	-
Deep Aquifer Treatment System (DATS)	10.0	8,900[2]	-
Wells 21 and 22	6.0	6,300[2]	-
Irvine Desalter	10.6	5,640[3]	49,840
Total Potable Current Supplies	**232.1**	**-**	**99,756**
Nonpotable – Recycled Water			
MWRP (18 mgd)	23.9	17,340[4]	-
LAWRP (5.5 mgd)	8.3	5,975[4]	23,315
Nonpotable – Imported			
Baker Aqueduct	52.7	15,262[5]	-
Irvine Lake Pipeline	65.0	9,000[6]	24,262
Nonpotable – Groundwater			
Irvine Desalter	5.4	3,898[7]	3,898
Nonpotable Native			
Irvine Lake	5.5	4,000[8]	4,000
Total Nonpotable Current Supplies	**160.8**	**-**	**55,475**
Total Combined Current Supplies	**392.9**	**-**	**155,231**
Supplies Under Development			
Potable Supplies			
Well 106	2.2	1,300	-
Well 53	4.5	3,000	-
Future OPA Wells	8.0	5,000	-
Anaheim wellfield	10.0	6,500	-
Wells 51 and 52	9.0	5,500	-
Tustin Legacy wells	9.0	5,000	-
Total Potable Under Development Supplies	**42.7**	**26,300**	**26,300**
Nonpotable Supplies: Future MWRP & LAWRP Recycled	20.0	14,450[10]	14,450

Table 5.13-1
IRWD's Existing Sources of Water Supply

	Max Day (cfs)	Avg. Annual (afy)	Annual by Category (afy)
Total Under Development	**105.4**		**40,750**
Potable Supplies	274.8		126,056
Nonpotable Supplies	180.7		69,925
Total Supplies (Current and Under Development)	**455.6**		**195,981**

afy = acre feet per year
Cfs = cubic feet per second
MWRP - Michelson Water Reclamation Plant
LAWRP - Los Alisos Water Recycling Plant
* 64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see WSA page A-23 (b)(1). (DSSEIR Appendix L).
[1] Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 3, page 22 of the WSA).
[2] Contract amount - See WSA page A-25, Potable Supply-Groundwater (iii) (DSSEIR Appendix L)
[3] Contract amount - See WSA page A-25, Potable Supply-Groundwater (iv) and (v) (DSSEIR Appendix L). Maximum day well capacity is compatible with contract amount.
[4] MWRP 18 mgd treatment capacity (17,400 afy RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 afy).
[5] Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5.
[6] Based on IRWD's proportion of Irvine Lake imported water storage; Actual ILP capacity would allow the use of additional imported water from MWD through the Santiago Lateral. MWD is the source of this water.
[7] Contract amount – See WSA page A-29, Nonpotable Supply-Groundwater (i) and (ii). (DSSEIR Appendix L). Maximum day well capacity (cfs) is compatible with contract amount.
[8] Based on 70 years historical average of Santiago Creek Inflow into Irvine Lake.
[9] Estimated combined capacity of wells.
[10] Future estimated MWRP and LAWRP recycled water production.

Nonpotable Water Supply

Recycled water, groundwater, and imported water account for IRWD's nonpotable water supply. IRWD's total existing nonpotable water supply and demand (without the 2012 Modified Project, but with the 2011 Approved Project) are shown in Table 5.13-3. The source of IRWD's groundwater supply is the Lower Santa Ana River Basin. IRWD is an operator of groundwater producing facilities in the Orange County Groundwater Basin.

Forecasts indicate that IRWD will continue to have a surplus supply of nonpotable water through the year 2032 under Normal-, Single Dry- and Multiple Dry-Year conditions.

Reliability of Long-Term Water Supply

Southern California faces the challenge of satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and the collaborative competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands in the region, putting an even larger burden on local supplies. A number of significant areas affecting the uncertainty for delivery reliability are discussed below. Major sources of uncertainty include Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

On March 29, 2011, Governor Jerry Brown ended the state of emergency declared by former Gov. Arnold Schwarzenegger in February 2009 after three relatively dry winters. Former Governor Schwarzenegger had declared a statewide drought in June 2008. The announcement from Governor Brown came after the California Department of Water Resources reported that the water content in the statewide snowpack was 165 percent of average for that time of year. The snowpack was also slightly above average in 2010. The snowpack in 2011 was 174 percent of normal in the north, 163 percent in the central Sierra and 158 percent in the southern part of the range. Sierra snow provides one third of California's water.

Table 5.13-2
IRWD Existing Supply and Demand for Potable Water
(afy)

Source	2012	2015	2020	2025	2032
Normal Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	60,992	64,220	69,563	75,505	81,667
Reserve Supply	**24,477**	**36,849**	**38,006**	**42,564**	**36,402**
Single Dry – Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	65,262	68,716	74,432	80,791	87,384
Reserve Supply	**20,207**	**32,353**	**33,137**	**37,278**	**30,685**
Multiple Dry – Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	65,262	68,716	74,432	80,791	87,384
Reserve Supply	**20,207**	**32,353**	**33,137**	**37,278**	**30,685**

Source: IRWD 2012
afy = acre feet per year
A full discussion of current and under-development water supply entitlements, water rights, and water service contracts can be found in the WSA (Appendix L to this DSSEIR).

Table 5.13-3
IRWD Existing Supply and Demand for Nonpotable Water
(afy)

Source	2012	2015	2020	2025	2032
Normal – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	4,000	4,000	4,000	4,000	4,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	57,035	57,035	57,035	57,035	57,035
Baseline Demand	28,985	28,779	30,169	31,157	30,296
Reserve Supply	**28,050**	**28,256**	**26,866**	**25,878**	**26,739**
Single Dry – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	31,014	30,794	32,281	33,338	32,417
Reserve Supply	**23,021**	**23,241**	**21,754**	**20,697**	**21,618**
Multiple Dry – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	31,014	30,794	32,281	33,338	32,417
Reserve Supply	**15,157**	**21,754**	**18,514**	**20,697**	**21,618**

Source: IRWD 2012
afy = acre feet per year
A full discussion of current and under-development water supply entitlements, water rights, and water service contracts can be found in the WSA (Appendix L to this DSSEIR).

The reliability of the IRWD's water supply currently depends on the reliability of both groundwater and imported water supplies, which are managed and delivered by the OCWD and MWD, respectively.

Metropolitan Water District of Southern California

MWD has a 5,200-square-mile service area and imports about half of the water used in southern California. The other half of the water comes from local surface and groundwater supplies, recycled water, and water imported from the Owens Valley by the City of Los Angeles. Urban water demands use approximately 20% of California's developed water supply, and agricultural uses consume approximately

80%. MWD imports water from the Colorado River and, through a contract with the State of California, from northern California via the SWP. The SWP, MWD's Colorado River Aqueduct, and MWD's local water facilities and programs have many layers that provide reliability. The SWP includes the very large San Luis Reservoir, near the City of Los Banos in Central California, and, closer to southern California, Pyramid and Castaic Lakes on the west branch, and Silverwood Lake and Lake Perris on the east branch of the SWP. MWD, in turn, has over one million acre-feet of surface water storage in southern California, including the new Diamond Valley Reservoir, in addition to large groundwater storage projects.

MWD Long-Term and Reliability Planning

MWD's framework for regional water resource planning for southern California is the Integrated Water Resources Plan ("IRP").The IRP is a long-term water resource strategy for the six-county area served by MWD, which covers parts of Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego Counties. The IRP was first adopted in 1996 and was last updated in 2010. It sets regional goals for the development of MWD's various water resources and calls for investments in water conservation, recycling, groundwater treatment, storage and transfers. In return, the IRP brings supply diversity and stability. The 2010 IRP Update showed that southern California water demand continued to exceed projections laid out in the original IRP approved in 1996. The 2010 IRP Update also recommended development of a supply buffer of 200,000 acre-feet, half of which would come from local resources, and the other half through water transfers and storage programs outside MWD's service area. This supply buffer allows MWD and its member agencies to manage the uncertainties and unreliability of supply and demand. As part of the approval of the 2010 IRP Update, the MWD Board directed staff to provide an annual report on the progress toward implementing the IRP targets.

The 2010 IRP Update also noted various uncertainties that may affect long-term water supply for southern California. Specifically, it expressed concerns revolving primarily around current and future SWP supplies and operations due to impacts of actions to protect endangered fisheries, and emerging challenges facing planners due to global warming and climate change. To address some of these issues, the 2010 IRP Update places an increased emphasis on regional collaboration, with goals of stabilizing MWD's traditional imported water supplies and continuing to develop additional local resources. It also advances long-term planning for potential future contingency resources, such as storm water capture and large-scale seawater desalination, in close coordination with MWD's 26 member public agencies and other utilities.

MWD has found that current practices of diversifying water supplies and securing supply reserves allow MWD and its member agencies to adjust to changes in demands and supplies and to maintain a high degree of reliability. Planned water supply sources include resource improvement strategies and additions currently under development by MWD. Based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD plans to accomplish this through its core resources strategies.

The 2010 IRP Update emphasizes an evolving approach and suite of actions to address the water supply challenges that are posed by uncertain weather patterns, regulatory and environmental restrictions, water quality impacts and changes in the state and the region. The three components of MWD's Adaptive Resource Management Strategy, which forms the basis for the 2010 IRP Update, include: Core Resources Strategy, Supply Buffer Implementation and Foundational Actions. The 2010 IRP Update expands the concept of developing a planning buffer from the 2004 IRP Update by implementing a supply buffer equal to 10 percent of the total retail demand. MWD will collaborate with the member agencies to

implement this buffer through complying with Senate Bill 7 ("SB 7") which calls for the state to reduce per capita water use by 20 percent by the year 2020.

Recent Actions on Delta Pumping

The Sacramento/San Joaquin Delta ("Delta") is a vulnerable component of both the State and federal systems that convey water from portions of northern California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt has resulted in litigation challenging permits for the ~~pumping~~export of water ~~from~~by the ~~Delta area~~SWP to Southern California and other areas of the state. On August 31, 2007, a federal court put in place interim measures to protect the endangered Delta smelt, salmon and other protected species, including limitations on experts of water via the State Water Project and Central Valley Project Delta pumping facilities. Those ~~imitations~~limitations have affected SWP operations and water supplies. On June 4, 2009, a federal biological opinion imposed rules that will further restrict water diversions from the Delta to protect endangered salmon and other endangered fish species. The 2009 biological opinion was the subject of additional litigation and the district court remanded the biological opinion and related approvals to the federal agencies for additional analysis under the National Environmental Policy Act and the Endangered Species Act. Pending the completion of additional administrative proceedings by the federal agencies, the SWP is being operated in accordance with the 2009 biological opinion as modified by orders of the federal district court. At present, several proceedings concerning Delta operations are ongoing to evaluate options for addressing impacts on the Delta smelt as well as other environmental concerns.

In addition to the regulatory and judicial proceedings that have addressed immediate environmental concerns, the Delta Vision process and the Bay-Delta Conservation Plan process are defining long-term solutions for the Delta (MWD 2010 IRP Update). The Bay-Delta Conservation Plan proposes to modify operations of the SWP to provide for the conservation of protected species including the development of an isolated tunnel to convey water east of the Delta to SWP pumping facilities. Because of the length of time required to obtain regulatory approvals of the Bay Delta Conservation Plan and to implement the Plan, it is anticipated that the SWP will be operated pursuant to the existing and pending biological opinions for up to a decade. Prior to the 2007 federal court decision concerning Delta water operations, MWD's Board approved a Delta Action Plan that described short, mid and long-term conditions of the Delta, and the actions needed to mitigate potential supply shortages and to develop and implement long-term solutions. To comprehensively address the impacts of the SWP cut-back on MWD's water supply development targets, MWD brought to its Board a strategy and work plan to update the long-term IRP, which led to the adoption of the 2010 IRP Update described above. As part of the IRP Update, MWD developed a region-wide collaborative process that included a broad-based stakeholder involvement. MWD held several stakeholder forums in 2006 and 2009 and the MWD Board adopted the 2010 IRP Update on October 12, 2010. In the 2010 IRP Update, MWD identified changes to the long-term plan and established direction to address the range of potential changes in water supply planning. The 2010 IRP Update also discusses dealing with uncertainties related to impacts of climate change (see additional discussion of this below) as well as actions to protect endangered fisheries. As discussed above, based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD will accomplish this through its core resources strategies.

MWD Shortage Allocation Plan

On the regional level, MWD has taken a number of actions to secure a reliable water source for its member agencies. MWD adopted a water supply allocation plan ("WSAP") for dealing with potential

shortages. The plan takes into consideration the impact on retail customers and the economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements. The possible range of a reduction in water supply is between 5 and 30 percent. Under MWD's shortage allocation approach, water would not be physically denied to an agency, but rather water obtained above an agency's allocation would be priced at a significant higher penalty rate. Development of an allocation would establish the amount of water available at the nonpenalty rate. The penalty rate is expected to be two to three times the nonpenalty rate.

In April 2011, crediting improved water reserves and the public's ongoing conservation efforts, MWD's Board of Directors voted to lift mandatory water allocation restrictions that had been in place since July 2009. The action, which became effective April 13, 2011, was made possible by 2010-2011 winter storms and water-saving efforts by the region's consumers and businesses. But, the improved conditions do not signal an end to long-term challenges.

Climate Change

In July 2006, the California Department of Water Resources ("DWR") released a report titled "Progress on Incorporating Climate Change into Management of California's Water Resources" which considers the impacts of climate change on the state's water supply. DWR emphasized that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating probability estimates with potential climate change scenarios in order to provide policy makers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in [the] report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, [the] results are not sufficient by themselves to make policy decisions."

In MWD's 2010 IRP Update, MWD recognizes that there is a significant uncertainty in the impact of climate change on water supply and changes in weather patterns could significantly affect water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a supply buffer equivalent to 10 percent of total retail demand. This buffer will be implemented through meeting SB 7 water use efficiency goals, implementing aggressive adaptive actions, developing local supplies and effecting transfers.

Per MWD's Regional Urban Water Management Plan ("RUWMP"), MWD continues to incorporate current climate change science into its planning efforts. As stated in MWD's RUWMP, the 2010 IRP Update supports the MWD Board adopted principles on climate change by: 1) supporting reasonable, economically viable and technologically feasible management strategies for reducing impacts on water supply; 2) supporting flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts; and 3) evaluating staff recommendations regarding climate change and water resources against CEQA to avoid adverse effects on the environment. Potential climate change impacts on state, regional and local water supplies and relevant information for the Orange County hydrologic basin and Santa Ana Watershed have not been sufficiently developed at this time to permit IRWD to assess and quantify the effect of any such impact on its conclusions in the WSA prepared for the 2012 Modified Project.

Catastrophic Supply Interruption Planning

In 2005, MWD cooperated with the DWR on a preliminary study of the potential effects of extensive levee failures in the Delta. The study investigated two of a potential range of scenarios, and MWD's analysis showed that, due to its investment in local storage and water banking programs south of the Delta, MWD would be able to supply all firm requirements to its member agencies under both of the scenarios considered. However, MWD's analysis of a worst-case situation showed that MWD might need to reduce firm deliveries to its member agencies by as much as 10 percent. MWD reported this analysis in the 2005 Regional UWMP. IRWD has addressed supply interruption planning in its WRMP and UWMP.

MWD will continue to rely on the plans and polices outlined in its UWMP and IRP to address water supply shortages and interruptions (including potential shutdowns of SWP pumps) to meet water demands. MWD is engaged in planning processes that will identify solutions which, when combined with the rest of its supply portfolio, should ensure a reliable long-term water supply for its member agencies.

Orange County Water District

The primary source of water for the City is the Orange County Groundwater Basin. The OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County, as well as for the management and replenishment of the Orange County Groundwater Basin. OCWD manages production in the basin through financial incentives and establishes the Basin Production Percentage each water year. Total water demand within OCWD's boundary for the 2009-10 water year (beginning July 1, 2009, and ending June 30, 2010) was 428,720 acre feet (af) (OCWD 2011). With implementation of OCWD's proposed projects, the Orange County Groundwater Basin yield in the year 2025 would be up to 500,000 acre feet (WSA pg. A-35). Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, basin management, and water rights protection, resulting in the elimination and prevention of adverse long-term "mining" overdraft conditions. OCWD has invested in seawater intrusion control (injection barriers), recharge facilities, laboratories, and basin monitoring to effectively manage the basin. OCWD continues to develop new replenishment supplies, recharge capacity, and basin protection measures to meet projected production from the basin during average/normal rainfall and drought periods.

OCWD's long-range plans for protecting the water supply and maintaining reliability to its member agencies include:

OCWD Long Term Facilities Plan

OCWD has prepared a draft Long Term Facilities Plan ("LTFP") to evaluate potential basin and water quality enhancement projects that may be implemented in the 20-year planning period. The LTFP includes a master list of developed and proposed projects. The various projects are grouped into five categories: 1) recharge facilities, 2) water source facilities, 3) basin management facilities, 4) water quality management facilities, and 5) operational improvements facilities. Each project is evaluated using criteria such as technical feasibility, cost, institutional support, functional feasibility, and environmental compliance. The final LTFP will include an implementation plan for the 28 recommended projects over the 20-year planning period.

OCWD Groundwater Management Plan

OCWD updated ~~finalized~~ its Groundwater Management Plan ("GMP") in July 2009 ~~March 2004~~, which updated prior versions from 1989, ~~and~~ 1990, and 2004. The GMP complies with Senate Bill 1938 ("SB

1938"), passed in 2002, which includes a list of items to be included in a GMP. The GMP's objectives are 1) protecting and enhancing groundwater quality, and 2) cost-effectively protecting and increasing the basin's sustainable yield. Various programs, policies, goals, and projects are defined in the GMP to assist OCWD staff in meeting these objectives. The potential projects described in the GMP are discussed in further detail in the LTFP.

OCWD 2020 Water Master Plan Report

OCWD's Water Master Plan Report ("MPR") was prepared in April 1999 and describes local water supplies and estimates their availability extending to the year 2020. Specifically, OCWD states in its Water MPR that significant water supply sources will be available in the future for potable, nonpotable, and recharge purposes. The 1999 Water MPR discusses source waters such as imported water from MWD, base flows from the Santa Ana River, treated wastewater through the OCWD/Orange County Sanitation District Groundwater Replenishment System program, and possibly desalinated ocean water. The local supply availability and projections from the 1999 Water MPR have been revised and are being pursued with the LTFP.

Principles Governing CEQA Analysis of Water Supply

In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.

- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.

- CEQA analysis cannot rely on so-called "paper water." The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.

- When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainly about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.

- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be "unworkable, as it would require water planning to far outpace land use planning." The requisite degree of certainty of a project's water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.

- The EIR analysis may rely on existing urban water management plans, so long as the project's new demand was included in the water management plan's future demand accounting.

- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

Water Distribution

Potable Water

A SAMP was prepared by IRWD for the Great Park in March 2009. The 2011 SAMP, which was a revision to the March 2009 SAMP, was adopted in September of 2011. The 2011 SAMP identified additional facilities required for the 2011 Approved Project.

Existing PAs 30 and 51 are located within Zone 3 North, Zone 4, and Zone 5 of the IRWD water system. The original water system for the former MCAS El Toro property was designed and built as a stand-alone system. Currently, IRWD supplies potable water to the former base through four metered connections that connect to the IRWD Zone 3 North and Zone 4 water system. The on-site existing potable water distribution system for the former MCAS El Toro property consists of a network of distribution system pipelines, six reservoirs, and two pump stations (CBA 2003).

Recycled Water

Recycled water is currently supplied to Existing PAs 30 and 51 via a 12-inch IRWD Zone B pipeline that runs perpendicular to Technology Drive and connects to an eight-inch pipeline in the southwest corner of the Proposed Project Site (CBA 2003).

Existing PAs 30 and 51 lie within three separate IRWD recycled water system pressure zones, including Zone B East Irvine, Zone C East Irvine, and Zone D AMP East. Zone B East Irvine serves elevations from 114 to 300 feet, Zone C East Irvine serves elevations from 300 to 440 feet, and Zone D AMP East serves elevations above 440 feet (CBA 2003).

5.13.1.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City has determined that a project would have a significant effect on the environment if the project:

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.[1]

U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

[1] Wastewater treatment facilities are addressed below.

5.13.1.3 The 2011 Approved Project

The 2011 Certified EIR analyzed impacts on water supply and the ability of IRWD to provide water to the 2011 Approved Project in accordance with SB 610 and SB 221. The 2011 Certified EIR estimated that the 2011 Approved Project would consume approximately 1.5 million gallons (1,680 AFY) of water per day, and concluded that adequate supplies were available to serve the land uses proposed at that time. Based on the findings of the water supply assessment prepared for the 2011 Approved Project, total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection would meet the water demand created by the 2011 Approved Project.

5.13.1.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies ("PPPs") that apply to the 2012 Modified Project and would help to reduce and avoid potential impacts related to water services:

PPP 13-1 **Requirement to Use Recycled Water:** Irvine Ranch Water District (IRWD) will identify areas within the Sub Area Master Plan that are capable of receiving service from the IRWD's recycled water system, and will determine the feasibility of providing recycled water service to these areas. IRWD will also review applications for new permits to determine the feasibility of providing recycled water service to these applicants. If recycled water service is determined by IRWD to be feasible, applicants for new water service shall be required to install on-site facilities to accommodate both potable water and recycled water service in accordance with IRWD's Rules and Regulations.

PPP 13-2 **Connection Fees:** The Project Applicant shall enter into agreement or agreements as necessary with IRWD to establish the appropriate financial fair share costs to be borne by the project proponent. Fair share costs may include, but are not limited to, those associated with the preparation of studies necessary to analyze the needs of the 2012 Modified Project and infrastructure expansion necessary to serve the 2012 Modified Project.

PPP 13-3 **Fire Flow Analysis:** In accordance with IRWD requirements, each tentative tract map in the 2012 Modified Project must provide a fire flow analysis. If the analysis identifies any deficiencies, the developer will be responsible for any water system improvements associated with the development project required to rectify the deficiencies and meet IRWD fire flow requirements.

Project Design Features

The following project design features ("PDFs") have been incorporated into the 2012 Modified Project to help to reduce and avoid potential impacts related to water services ~~and~~that have been assumed in this section's analysis:

PDF 4-3 **Low-Flow Fixtures:** The 2012 Modified Project incorporates low-flow water fixtures that will meet the requirements of the California Green Building Standards Code standards. Prior to issuance of building permit, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that toilets, urinals, sinks, showers,

and other water fixtures installed on-site are low-flow water fixtures that meet the California Green Building Standards Code standards.

PDF 4-4 **Landscaping and Irrigation Systems:** The 2012 Modified Project incorporates automated, high-efficiency landscaping irrigation systems on all master landscaped areas that reduce water use, such as evapotranspiration "smart" weather-based irrigation controllers, and bubbler irrigation; low-angle, low-flow spray heads; moisture sensors; and use of a California-friendly landscape palette. Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that such landscaping irrigation systems will be installed so as to make the 2012 Modified Project consistent with the intent of the California Water Conservation in Landscaping Act of 2006 (AB 1881), including provisions to reduce the wasteful, uneconomic, inefficient, and unnecessary consumption of water.

PDF 4-5 **Use of Recycled Water on All Master Landscaped Areas:** Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development and IRWD that the 2012 Modified Project incorporates the use of recycled water in all master landscaped areas, including master landscaped commercial, multifamily, common, roadways, and park areas. Master landscapes will also incorporate weather-based controllers and efficient irrigation system designs to reduce overwatering, combined with the application of a California-friendly landscape palette.

The following impact analysis addresses impacts related to water services that the Initial Study for the 2012 Modified Project disclosed as potentially significant impacts. The applicable impacts are identified in brackets after the impact statement.

IMPACT 5.13.1-1 EXISTING AND PLANNED IRWD WATER SUPPLIES AND DELIVERY SYSTEMS ARE ADEQUATE TO MEET THE 2012 MODIFIED PROJECT'S FORECASTED WATER DEMAND AS COMPARED TO THE 2011 APPROVED PROJECT. (IMPACT U-2 AND U-4)

The modifications to the 2011 Approved Project that are proposed by the 2012 Modified Project would alter the amount of water that would be demanded by the 2012 Modified Project as compared to the 2011 Approved Project, as discussed below.

IRWD SAMP

In March of 2009, IRWD completed and approved a Sub-Area Management Plan ("SAMP) for Existing Planning Areas 51 and 30 that identified on-site and off-site utility layouts and services for Sewer, Water and Recycled Water for the development approved through March of 2009. The SAMP also included an off-site storage analysis and discussion of NTS treatment facilities to capture and treat dry weather flow. The SAMP assumed a higher land use intensity for Existing Planning Areas 51 and 30 than the land use plan for the approved development actually provided.

In September of 2011, an amendment of the SAMP was approved by IRWD ("2011 SAMP") that accommodated the 2011 SEIR Approved Project. As before, the SAMP assumed a higher land use intensity than the 2011 Approved Project.

Since the structure of backbone for these utilities facilities remains the same for the 2012 Modified Project as for the 2011 Approved Project, an update to the 2011 SAMP is not needed at this time. Therefore, for the 2012 Modified Project, the SSEIR analyzed the conversion of non-residential intensity to residential uses and found the resulting values acceptable when compared to the 2011 SAMP. Per previous discussions with IRWD about the 2012 Modified Project, when layouts for backbone streets and preliminary utility layouts are available, the SAMP for Combined PA 51 will be amended, as necessary.

Potable Water Demand

The Sewer and Water Master Plan Study prepared for the 2012 Modified Project (see Appendix J), calculated the projected water demand for the 2012 Modified Project and compared the demand to that of the 2011 Approved Project. As shown on Table 5.13-4, buildout of the 2012 Modified Project without the optional conversion would result in an average water demand of approximately 0.8 million gallon per day (mgd) (896 acre-feet per year) more than the demand created by the 2011 Approved Project. Buildout of the 2012 Modified Project with the optional conversion would result in an average water demand of approximately 1.0 mgd (1,120 acre-feet per year) more than the demand created by the 2011 Approved Project.

Although the 2012 Modified Project will increase water consumption, as compared to the 2011 Approved Project, the 2011 SAMP included a Sensitivity Analysis which considered development of up to 9,500 residential units on the Proposed Project Site. The 2011 SAMP Sensitivity Analysis estimated peak water demand under such a scenario to be 2,021 gallons per minute (gpm) (2.9 mgd). As discussed in the Sewer and Water Master Plan Study prepared for the 2012 Modified Project (see Appendix J), peak water demand is estimated to be 1,896 gpm (2.7 mgd) for the 2012 Modified Project without the optional conversion, and ~~2,029~~1,991 gpm (2.9~~9~~8 mgd) for the 2012 Modified Project with optional conversion. Neither scenario is considered a noteworthy change in comparison to the demand considered in the 2011 SAMP Sensitivity Analysis. Therefore, no significant changes to the planned on-site water infrastructure are necessary to serve the 2012 Modified Project.

Table 5.13-4
Domestic Water Demand Summary
(Average Day Demand)

	2011 Approved Project	*2011 SAMP Sensitivity Analysis*	*2012 Modified Project (without Optional Conversion)*	*2012 Modified Project (with Optional Conversion)*
Heritage Fields	1.8 mgd	2.8 mgd	2.6 mgd	2.8 mgd
OCGP/Public Ownership	0.1 mgd	0.1 mgd	0.1 mgd	0.1 mgd
Total	1.9 mgd	2.9 mgd	2.7 mgd	2.9 mgd

Source: RBF Consulting, 2012
mgd = million gallons per day

Non-Potable Water Demand

The Sewer and Water Master Plan Study prepared for the 2012 Modified Project (see Appendix J), calculated the projected recycled water demand for the 2012 Modified Project and compared it to that of the 2011 Approved Project. As shown in Table 5.13-5, buildout of the 2012 Modified Project with or without the optional conversion would result in an average recycled water demand of approximately 1.5 mgd (1,679 acre-feet per year) less than the demand for the 2011 Approved Project. This reduction is largely due to the already approved removal of the golf course on the Proposed Project Site.

Table 5.13-5
Recycled Water Demand Summary
(Average Day Demand)

	2011 Approved Project	*2011 SAMP Sensitivity Analysis*	*2012 Modified Project (without Optional Conversion)*	*2012 Modified Project (with Optional Conversion)*
Heritage Fields	2.4 mgd	0.9 mgd	0.9 mgd	0.9 mgd
OCGP/Public Ownership	1.6 mgd	1.6 mgd	1.6 mgd	1.6 mgd
Total	4.0 mgd	2.5 mgd	2.5 mgd	2.5 mgd

Source: RBF Consulting, 2012
mgd = million gallons per day

Water Supply

As Tables 5.13-6 and 5.13-7 demonstrate, there is sufficient supply capacity for both potable and nonpotable water to accommodate full buildout of the 2012 Modified Project (with or without the optional conversion) through 2032, upon completion of water supplies that are under development.

Table 5.13-6
IRWD Buildout Supply and Demand for Potable Water
(Acre-Feet Per Year)

Source	2012	2015	2020	2025	2032
Normal-Year					
Maximum Supply Capacity [1, 2]	85,469	101,069	107,569	118,069	118,069
Buildout Demand [3, 4]	60,988	64,182	70,713	77,759	83,807
Reserve Supply	**24,481**	**36,877**	**36,856**	**40,310**	**34,262**
Single Dry-Year					
Maximum Supply Capability[1, 2]	85,469	101,069	107,569	118,069	118,069
Buildout Demand[3, 4]	65,257	68,674	75,663	83,202	89,674
Reserve Supply	**20,212**	**32,395**	**31,906**	**34,867**	**28,395**
Multiple Dry-Year					
Maximum Supply Capability[1, 2]	85,469	101,069	107,569	118,069	118,069
Buildout Demand[3, 4]	65,257	68,674	75,663	83,202	89,674
Reserve Supply	**20,212**	**32,395**	**31,906**	**34,867**	**28,395**

Source: IRWD WSA 2012
Notes:
[1] Includes current supplies and supplies under development.
[2] A full discussion of under-development water supply entitlement, water rights, and water service contracts can be found in the WSA.
[3] Full WRMP buildout, including the 2012 Modified Project.
[4] The WSA analyzed water demand for the 2012 Modified Project's based on a potential maximum number of 10,700 units.

Table 5.13-7
IRWD Buildout Supply and Demand for Nonpotable Water
(Acre-Feet Per Year)

Source	2012	2015	2020	2025	2032
Normal Year					
Maximum Supply Capacity[1, 2]	57,035	57,035	57,035	57,035	57,035
Buildout Demand[3, 4]	18,985	28,281	29,856	30,757	29,972
Reserve Supply	**38,050**	**28,754**	**27,179**	**26,278**	**27,063**
Single Dry Year					
Maximum Supply Capability[1, 2]	54,035	54,035	54,035	54,035	54,035
Buildout Demand[3, 4]	31,014	30,261	31,946	32,910	32,070
Reserve Supply	**23,021**	**23,774**	**22,089**	**21,125**	**21,965**
Multiple Dry Year					
Maximum Supply Capability[1, 2]	54,035	54,035	54,035	54,035	54,035
Buildout Demand[3, 4]	31,014	30,261	31,946	32,910	32,070
Reserve Supply	**23,021**	**23,774**	**22,089**	**21,125**	**21,965**

Source: IRWD WSA 2012
Notes:
[1] Includes current supplies and supplies under development.
[2] A full discussion of under-development water supply entitlement, water rights, and water service contracts can be found in the WSA.
[3] Full WRMP buildout, including the 2012 Modified Project.
[4] The WSA analyzed water demand for the 2012 Modified Project's based on a potential maximum number of 10,700 units.

Supplies Under Development

In addition to currently available water supplies, there are other new sources of water supply under development by IRWD. These sources include new production facilities in the west Irvine, Anaheim, Tustin Legacy, and Tustin Ranch portions of the Orange County Groundwater Basin. The facilities, referred to in the WSA as the "Irvine Wells," include four wells that have been drilled and have previously produced groundwater.

IRWD is also evaluating the development of additional supplies that are not included in either "*currently available"* or "*under-development"* supplies for purposes of the assessment found in the WSA. As outlined in the WRMP, prudent water supply and financial planning dictates that development of supplies be phased over time with the growth in demand. (IRWD 2012)

Water Supply Contingency Planning

IRWD considers a variety of factors when assessing its ability to meet water needs in the IRWD service area, including the possibility of supply shortfalls caused by natural disasters or delays in the completion of necessary infrastructure or water supplies. IRWD's assessment of supply availability contains several margins of safety, including:

- The identification of "reserve" water supplies that are available to serves as a buffer against inaccuracies in demand projections, future changes in land use, or alterations in supply availability.

- The identification of nonpotable water reserves that can be treated and converted into potable water reserves.

- The use of conservative estimates for annual imported potable and nonpotable supplies.

- The ability of groundwater production to exceed applicable basin production percentages on a short-term basis, providing additional reliability during dry years or emergencies.

These strategies assist IRWD in preparing for water needs in scenarios where "under development" supplies are not completed as planned. Loss of planned water supply is also addressed through catastrophic supply interruption planning, as described below. (IRWD 2012)

Catastrophic Supply Interruption Planning

MWD has developed "Emergency Storage Requirements" (2010 RUWMP) to safeguard the region from catastrophic loss of water supply. MWD has made substantial investments in emergency storage and has based its planning on a 100~~%~~ percent reduction in its supplies for a period of six months. The emergency plan outlines that under such a catastrophe, non-firm service deliveries would be suspended, and firm supplies would be restricted by a mandatory cutback of 25 percent from normal year demand deliveries. In addition, MWD discusses the long term Delta plan in its 2010 RUWMP. IRWD has also addressed supply interruption planning in its WRMP and UWMP. (IRWD 2012)

Temporary MWD Allocation

The potential for federal court-ordered sanctions restricting water diversion from the Sacramento/San Joaquin Delta to result in reduced MWD water supplies to IRWD has been evaluated by IRWD. Such a scenario has been modeled by IRWD and would involve a temporary reduced allocation of water from MWD to IRWD for the years 2010 through 2035. Use of local supplies, storage, and other supply augmentation measures would mitigate shortages resulting from a temporary MWD allocation condition, and are assumed to be in use to maximum extent possible during declared shortage levels in the analysis below.

Table 5.13-8 demonstrates that, as was the case for the 2011 Approved Project, IRWD has sufficient supply capacity of potable water under a temporary MWD Allocation condition to accommodate full buildout (including the 2012 Modified Project with or without the optional conversion) through 2032, upon completion of water supplies that are under development.

Table 5.13-8
IRWD Buildout Supply and Demand for Potable Water
Under Temporary MWD Allocation Conditions
(Acre-Feet Per Year)

Source	2012	2015	2020	2025	2032
Normal Year					
Maximum Supply Capacity [1, 2]	68,540	85,415	93,256	105,164	105,748
Buildout Demand [3, 4]	60,988	64,182	70,713	77,759	83,807
Reserve Supply[5]	**7,552**	**21,233**	**22,543**	**27,405**	**21,941**
Single Dry Year					
Maximum Supply Capability[1, 2]	68,540	86,729	94,608	106,557	108,078
Buildout Demand[3, 4]	69,825	68,674	75,663	83,202	89,674
Reserve Supply[5]	**(1,285)**	**18,055**	**18,945**	**23,355**	**18,404**
Multiple Dry Year					
Maximum Supply Capability[1, 2]	68,540	80,429	88,308	100,257	101,778
Buildout Demand[3, 4]	69,825	68,674	75,663	83,202	89,674
Reserve Supply [5]	**(1,285)**	**11,755**	**12,645**	**17,055**	**12,104**

Source: IRWD WSA 2012

Notes:

1 Includes current supplies and supplies under development.

2 A full discussion of under-development water supply entitlement, water rights and water service contracts can be found in the WSA.

3 Full WRMP buildout, including the 2012 Modified Project.

4 The WSA analyzed water demand for the 2012 Modified Project's based on a potential maximum number of 10,700 units.

5 Under shortage scenarios, IRWD may need to supplement supplies with production of groundwater, which can exceed the applicable basin production percentage on a short-term basis, providing additional reliability during dry years or emergencies. In addition, if needed resultant net shortage levels can be addressed by demand reduction programs as described in IRWD's Water Shortage Contingency Plan.

Conclusion Regarding Regulatory Uncertainties Affecting the Provision of State Water Project Supplies

There are water supply regulatory uncertainties that could significantly impact the delivery of water supplies through the coordinated operations of the SWP. As discussed above in Section 5.13.1.1, MWD, OCWD and IRWD are actively planning for water uncertainties related to the ~~Delta smelt~~restrictions on exports to the SWP from the Delta to reduce impacts on endangered and threatened species and due to the impacts of global climate change ~~issues~~. As discussed, there are two major state-sponsored planning efforts, the Delta ~~Vision Task Force~~Plan and the Bay Delta Conservation Plan program, that are directed toward resolving these uncertainties. The Delta Plan is a comprehensive, long-term management plan for the Delta. Required by the 2009 Delta Reform Act, it creates new rules and recommendations to further the state's coequal goals for the Delta: Improve statewide water supply reliability, and protect and restore a vibrant and healthy Delta ecosystem, all in a manner that preserves, protects and enhances the unique agricultural, cultural, and recreational characteristics of the Delta. The Delta Plan was unanimously adopted by the Delta Stewardship Council on May 16, 2013. Subsequently its 14 regulatory policies were approved by the Office of Administrative Law, a state agency that ensures the regulations are clear, necessary, legally valid, and available to the public. The Delta Plan became effective with legally-enforceable regulations on September 1, 2013. Given the significance of the SWP to public health and safety, as well as to the economy of the State of California, it would appear that major uncertainties will need to be comprehensively addressed in response to the needs of the aquatic environment. At the present time, the Governor and the Legislature are considering possible bond issues that would address the regulatory uncertainties, including measures that would be directed toward improving habitat conditions for the Delta smelt. An approximately $11.14 billion bond measure is targeted for the November 2012 ballot. Although it is not possible at this time to predict the outcome of these efforts with respect to specific levels of water supply under differing climate conditions, both cyclical and long term, the fact that 90 percent of the population of southern California lies within MWD's service area attests to the significance of planning efforts to resolve the regulatory and climate uncertainties. According to IRWD, the major water-supply planning efforts currently under way and current MWD efforts to address near-term uncertainties are, taken together, strong indicators that SWP water supply considerations will be comprehensively addressed and very likely resolved in the long term.

5.13.1.5 Cumulative Impacts

The geographic scope for cumulative water supply analysis is IRWD's service area. As described above, the total water supplies available to IRWD during MWD Allocation condition, Normal-, Single Dry-, and Multiple Dry-Year conditions within a 20-year projection will meet the projected water demand of the 2012 Modified Project and other cumulative development. IRWD supply and facilities planning is consistent with the general plans of the land use jurisdictions within IRWD's service area. Consequently, presuming future development is generally consistent with existing general plans, IRWD does not anticipate any problems supplying water to any current or reasonably foreseeable future development in the City of Irvine. Therefore, the 2012 Modified Project's demand for water services would not be cumulatively considerable.

As discussed above, IRWD's water reliability is dependent on OCWD groundwater and MWD imported water reliability. MWD will continue to rely on the plans and ~~polices~~policies outlined in its UWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. MWD is engaged in planning processes both with its member agencies and through its involvement in the ~~State~~Bay Delta ~~Vision~~Plan and Bay Delta Conservation planning processes

that are intended to identify solutions that, when combined with the rest of its supply portfolio, would ensure a reliable long-term water supply for its member agencies.

5.13.1.6 Applicable Mitigation Measures from the 2011 Certified EIR

No mitigation measures specific to impacts on potable and nonpotable water supplies and treatment were identified in the 2011 Certified EIR or associated MMRP.

5.13.1.7 Level of Significance Before Additional Mitigation

There are adequate water supply and planned delivery systems to adequately serve the 2012 Modified Project. IRWD does not anticipate any problems supplying water to any current or reasonably foreseeable future development in Irvine. In addition, PPP 13-1 through PPP 13-3 and PDFs 4-3 through 4-5 adopted in the MMRP for the 2011 Approved Project would lessen the impact of the 2012 Modified Project on future water supply and IRWD, and impacts have been determined to be less than significant.

5.13.1.8 Additional Mitigation Measures for the 2012 Modified Project

No mitigation measures are required since the 2012 Modified Project will have a less than significant impact on potable and recycled water supplies and treatment without mitigation.

5.13.1.9 Level of Significance After Additional Mitigation

The 2012 Modified Project's impacts concerning potable and non-potable water are less than significant without mitigation. No significant impacts relating to water supply have been identified.

5.13.2 Wastewater

5.13.2.1 Environmental Setting

Wastewater Treatment

Wastewater treatment for wastewater generated from the Proposed Project Site is provided by IRWD at its Michelson Wastewater Reclamation Plant ("MWRP"; IRWD 2011). The MWRP has a capacity of 18 mgd; expansion of the MWRP to a capacity of 28 mgd is underway, with planned completion in August 2012; average wastewater flows at the MWRP are approximately 18 mgd (Busald 2011).

Wastewater Collection

The primary sewer collection system that serves Existing PAs 30 and 51 is a two-branched system with flow from the northeast to the southwest, mainly by gravity. One lift station with two pumps is located in the southwest portion of Existing PA 51 in Building 375. The existing sewer infrastructure system on Existing PAs 30 and 51 consists of a series of polyvinyl chloride ("PVC") pipes and vitrified clay pipes ("VCP") ranging in size from 6-inches to 15-inches in diameter (CBA 2003).

Sewer discharge exits Existing PAs 30 and 51 via two 12-inch lines at the southwest boundary of the Proposed Project Site into the IRWD sewer system. The two 12-inch lines cross under the Metrolink railroad tracks and connect southwest of the tracks. The flows then combine and exit via an 18-inch VCP

pipe. The design capacity of this 18-inch pipe is about 1,200 gallons per minute (GPM), or 1.73 mgd. The flow continues through the IRWD Alton-Bake Parkway Trunk Sewer System to the San Diego Creek Interceptor on the north side of the San Diego (I-405) Freeway (CBA 2003).

5.13.2.2 Thresholds of Significance

Based on Appendix G to the CEQA Guidelines, the City has determined that a project would have a significant effect on the environment if the project:

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.13.2.3 The 2011 Approved Project

The 2011 Certified EIR concluded that IRWD has adequate wastewater treatment capacity to meet the estimated wastewater generation of the 2011 Approved Project.

The 2011 Certified EIR concluded that the 2011 Approved Project would not require construction of new or expanded wastewater treatment facilities but would require expansion of existing IRWD sewers. No significant impacts related to wastewater treatment were identified in the 2011 Certified EIR.

5.13.2.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

PPP 13-2 listed above applies to the 2012 Modified Project and would help reduce and avoid potential impacts related to wastewater services.

Project Design Features

PDF 4-3 listed above has been incorporated into the 2012 Modified Project and would help reduce and avoid potential impacts related to wastewater services.

The following impact analysis addresses impacts that the Initial Study for the 2012 Modified Project disclosed as potentially significant impacts. The applicable impacts are identified in brackets after the impact statement.

IMPACT 5.13.2-1 IRWD HAS ADEQUATE WASTEWATER TREATMENT CAPACITY TO MEET THE 2012 MODIFIED PROJECT'S ESTIMATED WASTEWATER GENERATION, AND PROJECT DEVELOPMENT WOULD NOT REQUIRE CONSTRUCTION OF NEW OR EXPANDED WASTEWATER TREATMENT FACILITIES AS COMPARED TO THE 2011 APPROVED PROJECT. (IMPACT U-2)

The modifications to the 2011 Approved Project proposed by the 2012 Modified Project would alter the amount of wastewater generated by the 2012 Modified Project as compared to the 2011 Approved Project.

Wastewater generation values were calculated for the 2012 Modified Project, including the optional conversion, and compared to the values in the 2011 SAMP calculated for the 2011 Approved Project. The values for the 2012 Modified Project were derived using the IRWD Generation Factors and Peak Flow Factors that were used as part of the 2011 SAMP. As shown below in Table 5.13-9, the 2012 Modified Project is estimated to generate a total of approximately 2.1 mgd of wastewater without the optional conversion and approximately 2.~~3~~2 mgd of wastewater with the optional conversion. This is an increase of approximately 0.~~9~~7 mgd (without optional conversion) or ~~1.1~~0.8 mgd (with optional conversion) as compared to the 2011 Approved Project.

Table 5.13-9
Sewer Demand Summary
(Average Day Demand)

	2011 Approved Project	*2011 SAMP Sensitivity Analysis*	*2012 Modified Project (without Optional Conversion)*	*2012 Modified Project (with Optional Conversion)*
Heritage Fields	1.3 mgd	2.0 mgd	2.0 mgd	2.2 mgd
OCGP/Public Ownership	0.1 mgd	0.1 mgd	0.1 mgd	0.1 mgd
Total	1.4 mgd	2.1 mgd	2.1 mgd	2.3 mgd

Source: RBF Consulting, 2012
mgd = million gallons per day

As stated above, wastewater treatment for wastewater generated from the Proposed Project Site is provided by IRWD at its MWRP (IRWD 2011). The MWRP has a capacity of 18 mgd; expansion of the MWRP to a capacity of 28 mgd is underway, with planned completion in August 2012. Average wastewater flows at the MWRP are approximately 18 mgd (IRWD 2012). Since expansion of the MWRP will be completed prior to development of the 2012 Modified Project, no significant impacts are anticipated.

IRWD has adequate wastewater treatment capacity for the 2012 Modified Project's estimated wastewater generation (IRWD 2012). Therefore, development of the 2012 Modified Project would not require construction of new or expanded wastewater treatment facilities as compared to the 2011 Approved Project.

IMPACT 5.13.2-2 PROJECT DEVELOPMENT WOULD NOT REQUIRE EXPANSION AND EXTENSIONS OF EXISTING IRWD SEWERS AS COMPARED TO THE 2011 APPROVED PROJECT. (IMPACT U-5)

As described in the 2011 Certified EIR, wastewater generated by the 2011 Approved Project would generally flow to the southwest, towards the intersection of the Santa Ana Freeway (I-5) and the Eastern Transportation Corridor (SR-133). All flows will be conveyed to IRWD's off-site wastewater collection system by gravity sewer. No sewage lift stations will be required.

Although the 2012 Modified Project will increase wastewater generation, as compared to the 2011 Approved Project, the 2011 SAMP included a Sensitivity Analysis which considered up to 9,500 residential units on the Proposed Project Site. The 2011 SAMP Sensitivity Analysis estimated peak wastewater generation under such a scenario to be 1,440 gpm (2.1 mgd). As discussed in the Sewer and Water Master Plan Study prepared for the 2012 Modified Project (see Appendix J), peak wastewater generation is estimated to be 1,396 gpm (2.1 mgd) for the 2012 Modified Project without the optional conversion or 1,490 gpm (2.3 mgd) for the 2012 Modified Project with the optional conversion. Neither scenario is considered a noteworthy change in comparison to the scenario considered in the 2011 SAMP Sensitivity Analysis. Therefore, no significant changes to the planned on-site backbone sewer infrastructure are necessary to serve the 2012 Modified Project. ~~Final design of local sewer lines will occur at the time individual tract maps are submitted.~~ When layouts for backbone streets, preliminary utility layouts, and subsequent Tentative maps are filed, the SAMP for Combined PA 51 will be updated, as necessary.

5.13.2.5 Cumulative Impacts

The geographic scope for cumulative wastewater analysis is IRWD's service area. As the agency charged with providing water treatment and sewer systems within Irvine, IRWD regularly updates its WRMP and creates SAMPs in an effort to conserve water resources, ascertain changed conditions, and accurately plan for land use changes associated with the evolving Zoning Codes and General Plans of the jurisdictions within IRWD's service area. (IRWD 2011)

As discussed above, development of the 2012 Modified Project would not require additional wastewater infrastructure, including upsizing of wastewater and nonpotable water pipe segments, as compared to the 2011 Approved Project. No increase in wastewater treatment capacity would be required to serve the 2012 Modified Project. As such, like the 2011 Approved Project, the 2012 Modified Project would not result in a significant impact related to wastewater transmission or treatment capacity.

Through its SAMP, IRWD has identified areas within its jurisdiction in need of wastewater infrastructure improvements and has determined the cost of those improvements. The Applicant or its successor would be responsible for the cost of building the sewer extensions within the Proposed Project Site, as well as needed sewer expansions in and near Technology Drive south of the Proposed Project Site. The IRWD will have adequate wastewater treatment capacity to serve the 2012 Modified Project's estimated wastewater generation. Additionally, the long-range planning efforts of IRWD take into account cumulative development projects, including the 2012 Modified Project, to eliminate the potential for cumulative impacts. IRWD plans and builds wastewater treatment capacity to accommodate planned growth in its service area. The 2012 Modified Project is required to fund an analysis of 2012 Modified Project sewer requirements (completed as part of the SAMP) and to finance all sewer improvements required by the 2012 Modified Project. Other new and redevelopment projects in IRWD's service area are

required to fund corresponding analyses and improvements. Therefore, as with the 2011 Approved Project, substantial cumulative impacts to wastewater treatment and wastewater conveyance are not expected, and the 2012 Modified Project's impacts on wastewater treatment and conveyance would not be cumulatively considerable.

5.13.2.6 Applicable Mitigation Measures from the 2011 Certified EIR

No mitigation measures specific to the impacts of the 2011 Approved Project on wastewater collection or treatment were recommended in the 2011 Certified EIR or associated MMRP.

5.13.2.7 Level of Significance Before Additional Mitigation

Impacts of building and operating sewer extensions were part of the impacts of the 2011 Approved Project that were analyzed in the 2011 Certified EIR No significant sewer impacts would occur beyond those impacts identified in the 2011 Certified EIR. Therefore, potential wastewater impacts of the 2012 Modified Project have been determined to be less than significant without mitigation.

5.13.2.8 Additional Mitigation Measures for the 2012 Modified Project

No mitigation measures are required since the 2012 Modified Project will have a less than significant impact on wastewater collection and treatment without mitigation.

5.13.2.9 Level of Significance After Additional Mitigation

The 2012 Modified Project's impacts concerning wastewater treatment and facilities are less than significant without mitigation. No significant impacts relating to wastewater treatment or collection due to the 2012 Modified Project have been identified.

5.13.3 Solid Waste

5.13.3.1 Environmental Setting

OC Waste & Recycling ("OCWR") is the government agency that regulates and operates the local Orange County landfills, including the Frank R. Bowerman Landfill which is located in the City. Waste Management of Orange County is the private contract waste hauler for all residential developments in Irvine.

OCWR operates three landfills in Orange County, which are listed below in Table 5.13-10. Table 5.13-10 also sets forth the actual average daily rate of disposal, the maximum daily permitted capacity, the remaining capacity and the estimated closure date of each of the three landfills.

Table 5.13-10
OCWR Landfills

Landfill	City or Community	Disposal Rate, Tons per Day		Remaining Capacity, Cubic Yards	Estimated Closure Date
		Maximum Permitted	Actual		
Frank R. Bowerman	Irvine	11,500	5,500	198.1 million	2053
Prima Deschecha	San Juan Capistrano	4,000	1,000	133.4 million	2067
Alpha Olinda	Brea	8,000	5,000	48.8 million	2021

Source: OCWR 2012

Assembly Bill ("AB") 939 requires that each county and city prepare a source reduction and recycling element showing how it will meet diversion of solid waste from landfills goals of 25 percent by the year 1995, and 50 percent by the year 2000 and every year after. Compliance with AB 939 is now measured in terms of actual disposal amounts per person compared to target amounts; actual disposal amounts at or below targets are in compliance with AB 939. For 2008, the most recent year for which data is available, target disposal rates for Orange County in pounds per person per day ("ppd") were 10.1 for residences and 9.3 for businesses. Actual disposal rates in Irvine were 5.7 ppd for residences and 6.6 ppd for businesses in 2010, the most recent year for which data is available (CalRecycle 2012b). Thus, the City is in compliance with AB 939 goals.

As of 2010, there were 39 programs in place in the City for diversion of solid waste from landfills. These include programs for composting, household hazardous waste, recycling, source reduction, and special waste materials such as construction and demolition debris (CalRecycle 2012a).

5.13.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City has determined that a project would have a significant effect on the environment if the project:

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

In the Initial Study for the 2012 Modified Project, included as Appendix A to this DSSEIR, the City determined that that the following impact would not be significant: U-7. The discussion in Section 8.0 *Impacts Found Not To Be Significant*, of this DSSEIR, supports the City's determination that the impact was sufficiently analyzed in the 2011 Certified EIR and that implementation of the modifications proposed by the 2012 Modified Project would not change the conclusions of the 2011 Certified EIR with respect to that impact. Therefore, Impact U-7 will not be addressed further in this Section.

5.13.3.3 The 2011 Approved Project

The 2011 Certified EIR concluded that the 2011 Approved Project would generate approximately 136,520 ppd or 68.26 tons per day ("tpd") of solid waste. The 2011 Certified EIR identified that solid waste

reduction would be achieved through the City requirement for recycling of construction and demolition material to reduce waste, as well as through compliance with AB 939, which requires that a minimum of 50 percent of the solid waste generated in cities in California be diverted from landfills. Further, Senate Bill 1374 requires that all cities implement measures that require diversion of 75 percent of all construction and demolition waste from landfills. The 2011 Approved Project incorporated the already-adopted Mitigation Measures SW-1 through SW-5 in the MMRP for the 2011 Approved Project. While the 2011 Certified EIR identified a potential impact related to solid waste, it concluded that, with the recommended City-adopted mitigation measures, the impact would be less than significant.

5.13.3.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

The following City plans, programs and policies would apply to the 2012 Modified Project, and would help reduce the 2012 Modified Project's solid waste impacts:

PPP 13-4 The City Construction and Demolition (C&D) Debris Recycling and Reuse ordinance requires that 1) all residential projects of more than one unit, 2) nonresidential developments on 5,000 square feet or larger, and 3) nonresidential demolition/renovations with more than 10,000 square feet of building recycle or reuse a minimum of 75 percent of concrete and asphalt and 50 percent of nonhazardous debris generated.

PPP 13-5 The City adopted a Zero Waste program in 2007 to approach waste management. The City recovers approximately 66 percent of its waste for recycling and composting, which exceeds the state's AB 939 waste diversion goals. Furthermore, waste haulers establish rate schedules according to bin size and frequency of collection. Commercial customers that subscribe to smaller bins (e.g., 2 cubic-yard bins) are routinely charged less by haulers. This pricing structure encourages waste reduction and recycling, and tends to minimize hauler pickups.

PPP 13-6 The Irvine Sustainable Community Initiative (Initiative Ordinance 10-11), adopted by the voters of the City as Initiative Measure S on November 2, 2010, and certified by the City Council on December 14, 2010, became effective December 24, 2010. The ordinance was adopted to ratify and implement policies in support of renewable energy and environmental programs for a sustainable community. It outlines the City's direction for continuing to develop and implement programs geared towards green building, renewable energy and sustainability. For example, the City would continue to develop and implement recycling, zero waste or other innovative onsite business programs to divert waste from landfills and also continue to develop and implement the use of native, California-friendly and drought-tolerant landscaping.

PPP 13-7 Prior to the issuance of grading permits for a project that involves the demolition of an asphalt or concrete parking lot on site, the applicant shall submit a waste management plan demonstrating compliance with the requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 2.24).

PPP 13-8 Prior to the issuance of building permits for a project that involves new construction or that involves the demolition or renovation of existing buildings on site, the applicant shall comply with requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of construction and demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 3.7).

Project Design Features

There are no project design features that apply to the 2012 Modified Project to help to reduce and avoid potential impacts related to solid waste disposal.

The following impact analysis addresses the impacts for which the 2012 Modified Project's Initial Study disclosed a potentially significant impact. The applicable impact is identified in brackets after the impact statement.

IMPACT 5.13-3: THERE IS SUFFICIENT LANDFILL CAPACITY IN THE REGION FOR 2012 MODIFIED PROJECT-GENERATED SOLID WASTE AS COMPARED TO THE 2011 APPROVED PROJECT [IMPACTS U-6]

Impact Analysis: The 2012 Modified Project incorporates the mitigation measures adopted in the MMRP for the 2011 Approved Project by the associated MMRP, including, without limitation SW1 through SW5. Like the 2011 Approved Project, the 2012 Modified Project's land uses would generate the typical range of recyclable and non-recyclable waste that other such uses create, including green waste (i.e., lawn and tree trimmings), cardboard, paper, glass, plastic, aluminum cans, diapers, food, and household hazardous waste (paint, motor oil, antifreeze, batteries). Solid waste disposal services for the 2012 Modified Project would be provided by Waste Management of Orange County, a private contract hauler that serves all residential developments in Irvine.

Development of the 2012 Modified Project would increase the amount of solid waste generated by the land uses at the Proposed Project Site, and would thereby increase the demand for solid waste services compared to the 2011 Approved Project. Pursuant to solid waste generation rates provided by CalRecycle, on average, residential land uses generate approximately 12.23 ppd of solid waste per household and commercial uses generate an average of 3.12 ppd of solid waste per 100 square feet, as listed in Table 5.13-11.

Table 5.13-11
Estimated Solid Waste Generation Rates by Land Use Type

Land Use	Generation Factor
Residential	12.23 lbs/household/day
Offices	0.084 lb/sf/day
Commercial/Retail	3.12 lbs/100 sf/day
Restaurants	0.005 lb/sf/day
Industrial/Warehouse	1.42 lb/100 sf/day
Schools	1 lb/student/day
Hotel/Motel	4 lbs/room/day
Public/Institutional	0.007 lb/sf/day

Source: CalRecycle 2011 and Arnau 2012

As shown in Table 5.13-12a, the 2012 Modified Project's 9,500 dwelling units would generate approximately 116,185 ppd (or 58.09 tpd) of solid waste, and the 4,902,200 square feet of non-residential uses would generate approximately 165,345 ppd (or 82.67 tpd) of solid waste. As shown in Table 5.13-12b, with use of the optional conversion included, the 2012 Modified Project's 10,700 dwelling units would generate approximately 130,861 ppd (or 65.43 tpd) of solid waste, and the 4,367,200 square feet of non-residential uses would generate approximately 120,422 ppd (or 60.21 tpd) of solid waste. Therefore, the 2012 Modified Project without the optional conversion would generate a total of 281,530 ppd (or 140.76 tpd) of solid waste, which is an increase of 145,010 ppd (or 72.50 tpd) from the 2011 Approved Project. With the optional conversion, the 2012 Modified Project would generate a total of 251,283 ppd (or 125.64 tpd) of solid waste, which is an increase of 114,763 ppd (or 57.38 tpd) from the 2011 Approved Project.

Solid waste from the 2012 Modified Project would be disposed of at the Frank R. Bowerman Landfill. As described above in Table 5.13-10, the average daily rate of disposal for the Frank R. Bowerman Landfill is 5,500 tpd, with a maximum daily permitted capacity of 11,500 tpd. OCWR has stated that its landfills can accommodate the solid waste generated by the 2012 Modified Project, as well as that generated by cumulative development (Arnau 2012).

Table 5.13-12a
Estimated Solid Waste Generation at Buildout
(2012 Modified Project without Optional Conversion)

Land Use	Units/Square Feet	Generation Factor	Amount of Solid Waste (lbs/day)
Single Family Residential	3,660 (2,466 + 1,194) du	12.23 lbs/household/day	44,762
Multi-family Residential	5,840 (2,428 + 3,412) du	12.23 lbs/household/day	71,423
Medical and Science	3,364,000 sf	1.42 lb/100 sf/day	47,769
Multi-Use	1,318,000 sf	0.084 lb/sf/day	110,712
Community Commercial	220,000 sf	3.12 lbs/100 sf/day	6,864
Total	**9,500 units/ 4,902,200 sf**	**N/A**	281,530

Table 5.13-12b
Estimated Solid Waste Generation at Buildout
(2012 Modified Project with Optional Conversion)

Land Use	Units/Square Feet	Generation Factor	Amount of Solid Waste (lbs/day)
Single Family Residential	3,971 (2,466 + 1,505) du	12.23 lbs/household/day	48,565
Multi-family Residential	6,729 (2,428 + 4,301) du	12.23 lbs/household/day	82,296
Medical and Science	3,364,000 sf	1.42 lb/100 sf/day	47,769
Multi-Use	783,200 sf	0.084 lb/sf/day	65,789
Community Commercial	220,000 sf	3.12 lbs/100 sf/day	6,864
Total	**10,700 units/ 4,367,200 sf**	**N/A**	251,283

There is adequate capacity at the Frank R. Bowerman Landfill for the solid waste generated by the 2012 Modified Project as compared to the 2011 Approved Project, and implementation of the 2012 Modified Project would not require increased permitted landfill capacity either there or in any other landfill. Therefore, like the 2011 Approved Project, the 2012 Modified Project's impacts with respect to solid waste would be less than significant.

5.13.3.5 Cumulative Impacts

The 2012 Modified Project, in combination with other projects in the county, would increase demand for landfills and solid waste services in Orange County. However, the Orange County Landfill System is required to have available disposal capacity for a projected period of 15 years. The Orange County Landfill System has demonstrated this capacity and even has sufficient excess capacity to enable it to regularly import solid waste from Los Angeles County. The rate of disposal at the Frank R. Bowerman Landfill serving the Proposed Project Site is 5,500 tpd, with a maximum daily permitted capacity of 11,500 tpd, and that landfill has capacity through the year 2053. OCWR has confirmed that it can accommodate the solid waste generated by the 2012 Modified Project as well as that generated by cumulative development (OCWR 2012). Therefore, like the 2011 Approved Project, the 2012 Modified Project's impacts with respect to solid waste would not be cumulatively considerable.

5.13.3.6 Applicable Mitigation Measures from the 2011 Certified EIR

Five mitigation measures for solid waste impacts were recommended in the 2011 Certified EIR and associated MMRP, were adopted in the MMRP by the City for the 2011 Approved Project, and are incorporated into the 2012 Modified Project. They include the following:

SW-1 It is anticipated that much of the solid waste resulting from the demolition, dismantling, or other deconstruction of the aged structures and property, including but not limited to buildings and runways, at MCAS El Toro is contaminated with lead-based paints, asbestos, or other materials that may render it unsuitable for recycling or reuse. At the sole cost and expense of the project applicant, in order to evaluate this condition and determine the feasibility of recycling of solid waste material from the MCAS El Toro site by ordinary means, a technical evaluation by a qualified environmental consultant must be conducted. The technical evaluation shall include sufficient sample testing of all types of solid waste materials to be generated by the project to analyze its composition. A copy of the full technical evaluation and its findings must be submitted to the City of Irvine Community Development Department. The City of Irvine must confirm the adequacy of the technical evaluation prior to authorizing the demolition, dismantling, or deconstruction project to proceed. If it is determined by the technical evaluation that material is contaminated and prohibited from being recycled by ordinary means, a further evaluation must be conducted to identify and evaluate other feasible methods approved by state law to divert the material from landfills. This may include the delivery of the waste material to other appropriate non-disposal or transformation facilities, such as “waste-to-energy” (WTE) plants.

SW-2 For that solid waste which is determined to be inappropriate for recycling (as that term is defined by California Public Resources Code Section 40180), the project applicant must submit a written plan to the City and implement such plan to ensure that 75% of the material, or the maximum amount feasible as determined by the technical evaluation, is diverted from the landfill through other methods that comply with state statutes and regulations.

SW-3 For that solid waste which the technical study deems to be suitable for recycling, the project applicant must submit a written plan to the City and implement such plan to ensure that solid waste material generated by the demolition, dismantling, or deconstruction project, land use operations and maintenance is collected by a City authorized solid waste hauler or recycling agent, and that a minimum of 75% of the solid waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180 ("Recycling" does not include transformation, as defined in Public Resources Code Section 40201).

SW-4 To ensure ongoing compliance with these mitigation measures, the project applicant will be required to submit solid waste tonnage reports to the City of Irvine on City approved forms, accompanied by "weight ticket" receipts from state-certified disposal, nondisposal, or transformation facilities, on a quarterly basis to demonstrate that solid waste diversion has occurred in accordance with these required mitigation measures and in a manner that is consistent with, and not detrimental to, the efforts of the City of Irvine to comply with AB939.

To assure compliance with applicable statutes related to the disposal of solid waste, it is necessary for the City to require appropriate and effective mitigation measures to limit the disposal and ensure significant recycling of solid waste on-site.

SW-5 For green waste, the project applicant must submit a written plan to the City and implement such plan to ensure that the green waste material generated by landscape maintenance operations is collected by a City authorized waste hauler or recycling agent, that the maximum feasible amount of that collected green waste is recycled, and that a minimum of 50% of the green waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180.

5.13.3.7 Level of Significance Before Additional Mitigation

No significant impacts relating to solid waste have been identified. All 2012 Modified Project impacts related to solid waste will be less than significant without additional mitigation beyond Mitigation Measures SW-1 through SW-5 already adopted in the MMRP for the 2011 Approved Project, and which are incorporated into the 2012 Modified Project. In addition, PPPs 13-4 through 13-8 would lessen the impact of the 2012 Modified Project on solid waste.

5.13.3.8 Additional Mitigation Measures for the 2012 Modified Project

No additional mitigation measures are recommended, since the 2012 Modified Project will have a less than significant impact on solid waste as compared to the 2011 Approved Project.

5.13.3.9 Level of Significance After Additional Mitigation

No significant impacts relating to solid waste have been identified for the 2012 Modified Project.

5.13.4 Electricity, Natural Gas, and Telecommunications

5.13.4.1 Environmental Setting

Electricity

The Proposed Project Site is located within the electricity service territory of Southern California Edison ("SCE"). SCE provides electrical service to 180 cities covering over 50,000 square miles of service area and encompassing 11 counties in central and coastal Southern California. The Proposed Project Site has electricity service. SCE estimated total electricity consumption in its service area to be 100,907 gigawatt-hours (GWh) in 2008, and forecasts total consumption in its service area to be 112,964 GWh in 2020 (CEC 2009).

Natural Gas

The Proposed Project Site lies entirely within the natural gas service territory of the Southern California Gas Company ("SCGC"). SCGC's service territory encompasses approximately 23,000 square miles of central and Southern California. SCGC projected total consumption of natural gas in its service area would be 7,422 million therms[2] in 2011, and forecasts consumption to increase to 7,829 million therms by 2020 (CEC 2009). SCGC has an existing gas main located near the Proposed Project Site (Harriel 2011).

Telecommunications

AT&T provides telephone service to the Proposed Project Site. There are AT&T fiber and copper facilities on Trabuco Road extending into 'Building One' on the Proposed Project Site. There is a conduit system in Irvine Boulevard, but no feeder cable extends from Irvine Boulevard into the Proposed Project Site (Akin 2011). Cox Communications provides cable video, data, and telephone service to south Orange County, including Irvine, and has fiber-optic and coax infrastructure in and around the Proposed Project Site (Weibel 2011). AT&T and Cox Communications would serve the Proposed Project Site with communication facilities and services.

5.13.4.2 Thresholds of Significance

The City has determined that a project would have a significant effect on the environment if the project would:

U-8 Require substantial new or expanded electricity supplies.

U-9 Require substantial new or expanded supplies of natural gas.

U-10 Require substantial new or expanded telecommunications infrastructure.

5.13.4.3 The 2011 Approved Project

The 2011 Certified EIR concluded that the 2011 Approved Project would generate demand for 69.5 million kilowatt-hours (kWh) of electricity per year. The 2011 Certified EIR concluded that demand for electricity service would be accommodated by SCE. It further concluded that with implementation of

[2] One therm is the energy in approximately 97.1 cubic feet of natural gas; or 100,000 BTU.

energy efficiency standards and the construction of new facilities by SCE as necessitated by demand for new service, SCE would be able to supply electricity to meet the demand for electricity generated by the 2011 Approved Project. The 2011 Certified EIR determined that no significant impact concerning electricity services would occur.

The 2011 Certified EIR concluded that the 2011 Approved Project would consume roughly 324 billion British thermal units (BTUs) of natural gas per year. The 2011 Certified EIR concluded that sufficient natural gas infrastructure existed to serve the 2011 Approved Project and that no significant impact concerning natural gas services would occur.

The 2011 Certified EIR concluded that impacts related to the installation of new utility infrastructure were sufficiently addressed in the environmental analysis in sections of the 2011 Certified EIR other than Section 5.12, *Utilities and Service Systems*. The 2011 Certified EIR concluded that after implementation of all mitigation measures then-proposed for the 2011 Approved Project impacts from installation of utility infrastructure for the 2011 Approved Project would be less than significant.

5.13.4.4 Environmental Impacts of the 2012 Modified Project

Existing Plans, Programs, and Policies

The following City plans, programs and policies ("PPP") would apply to the 2012 Modified Project, and would help reduce the 2012 Modified Project's impacts related to electricity, natural gas and telecommunications facilities and services:

PPP 4-3 **California's Building and Energy Efficiency Standards (CCR Title 24)**: Prior to the issuance of a building permit for residential, commercial, or office structures in the Proposed Project Site, development plans for these structures shall be required to demonstrate that the project meets the Building and Energy Efficiency Standards in place at the time of building permit issuance. Commonly known as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2008 standards are approximately 15 percent more energy efficient than the 2005 Building and Energy Efficiency Standards. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent more efficient for nonresidential construction. The 2013 Standards, which take effect on January 1, 2014, offer builders more efficient windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Plans submitted for building permits shall include written notes demonstrating compliance with the energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits. Design strategies to meet this standard may include maximizing solar orientation for daylighting and passive heating/cooling, installing appropriate shading devices and landscaping, utilizing natural ventilation, and installing cool roofs. Other techniques include installing insulation (high R value) and radiant heat barriers, low-e window glazing, or double-paned windows.

PPP 4-4 **Title 24 Code Cycles: Net-Zero Buildings (Residential & Non-Residential)**: The California Public Utilities Commission adopted its Long-Term Energy Efficiency Strategic Plan on September 18, 2008, presenting a roadmap for all new residential and commercial construction to achieve a zero-net energy standard. This Plan outlines the goal of reaching

zero net energy in residential construction by 2020 and in commercial construction by 2030. Achieving this goal will require increased stringency in each code cycle of California's Energy Code (Title 24).

PPP 4-5 **California Renewable Portfolio Standard**: CARB's Renewable Portfolio Standard (RPS) is a foundational element of the State's emissions reduction plan. In 2002, Senate Bill 1078 established the California RPS program, requiring 20 percent renewable energy by 2017. In 2006, Senate Bill 107 advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II. On September 15, 2009, Governor Arnold Schwarzenegger signed Executive Order S-21-09 directing CARB to adopt regulations increasing RPS to 33 percent by 2020. These mandates apply directly to investor-owned utilities, which in the case of the 2012 Modified Project is Southern California Edison.

Project Design Features

The following project design feature ("PDF") has been incorporated into the 2012 Modified Project and is applicable here.

PDF 4-7 **Energy Star Appliances:** EnergyStar appliances (excluding refrigerators), such as dishwashers, clothes washers, clothes dryers, air conditions, furnaces, and water heaters, shall be offered or installed in all residential dwelling units.

The following impact analysis addresses impacts for which the 2012 Modified Project's Initial Study disclosed as potentially significant impacts.

IMPACT 5.13-4: EXISTING AND/OR PROPOSED FACILITIES WOULD BE ABLE TO ACCOMMODATE 2012 MODIFIED PROJECT-GENERATED UTILITY DEMANDS AS COMPARED TO THE 2011 APPROVED PROJECT [IMPACTS U-8, U-9 AND U-10].

Impact Analysis:

Project Electricity Demand

Electricity demand at buildout for the 2012 Modified Project (with and without the optional conversion) is shown below in Table 5.13-13. Energy use from future development is based on energy generation rates available from the Database for Energy Efficient Resources ("DEER") issued by the California Public Utilities Commission (CPUC 2008).

At buildout, the 2012 Modified Project would generate a demand for 85.12 Gwh/year of electricity without the optional conversion. With the optional conversion, the 2012 Modified Project would generate a demand for 83.04 Gwh/year of electricity at buildout. This represents an increase of 15.61 Gwh/year without the optional conversion (or 13.53 Gwh/year with the optional conversion) above the estimated demand of the 2011 Approved Project. Demand for electricity service would be accommodated by SCE (Nelson 2012). New facilities to support the demand for electric service in the 2012 Modified Project would be constructed by SCE as necessitated by the demand for new service (Nelson 2012). In addition, new structures within the Proposed Project Site would be built in accordance with the adopted 2008 Building and Energy Efficiency Standards, the 2010 Green Building Code, and the PDF listed above in Section 5.13.4.4. The 2008 Building and Energy Efficiency Standards are approximately 15 percent more

energy efficient than the previous 2005 Building and Energy Efficiency Standards, and the Applicant has committed to making development under the 2012 Modified Project be 15 percent more energy efficient than the 2008 Building and Energy Efficiency Standards. SCE would be able to supply electricity to meet the demand for electricity generated by the 2012 Modified Project (Nelson 2012). Therefore, like the 2011 Approved Project, the 2012 Modified Project would not create a significant impact with respect to electricity facilities and services.

Table 5.13-13a
Total Projected Electricity Demand at Buildout
(2012 Modified Project Without Optional Conversion)

Land Use	*Quantity*	*Electricity Generation Factor*[1]	*Total Demand in kilowatt-hours per year (kwh/year)*	*Total Demand in gigawatt-hours per year (Gwh/year)*[2]
Residential				
Residential	9,500	4,333 kWh/DU	41,163,500	41.16
Non-residential				
Medical and Science	3,364,000	6.995 kWh/SF (consumption rate for R&D)	23,531,180	23.53
Multi-Use	1,318,200	13.604 kWh/SF (consumption rate for Office)	17,932,793	17.93
Community Commercial	220,000	11.329 kWh/SF (consumption rate for Retail/Auto Sales)	2,492,380	2.49
Subtotal, Non-residential	4,902,200	-	43,956,353	43.96
Total Buildout Demand			**85,119,853**	**85.12**

du = dwelling unit

[1] Source: DEER, 2008. Specific consumption rates for school uses are not available, but SCE has indicated that it would have enough electricity to serve the entirety of the 2012 Modified Project, including the proposed high school.

[2] 1 Gwh = 1,000,000 kwh

Table 5.13-13b
Total Projected Electricity Demand at Buildout
(2012 Modified Project With Optional Conversion)

Land Use	*Quantity*	*Electricity Generation Factor*[1]	*Total Demand in kilowatt-hours per year (kwh/year)*	*Total Demand in gigawatt-hours per year (Gwh/year)*[2]
Residential				
Residential	10,700	4,333 kWh/DU	46,363,100	46.36
Non-residential				
Medical and Science	3,364,000	6.995 kWh/SF (consumption rate for R&D)	23,531,180	23.53
Multi-Use	783,200	13.604 kWh/SF (consumption rate for Office)	10,654,652	10.65
Community Commercial	220,000	11.329 kWh/SF (consumption rate for Commercial - Retail/Auto Sales)	2,492,380	2.49
Subtotal, Non-residential	4,367,200	-	36,678,212	36.68
Total Buildout Demand			**83,041,312**	**83.04**

du = dwelling unit
[1] Source: DEER, 2008. Specific consumption rates for school uses are not available, but SCE has indicated that it would have enough electricity to serve the entirety of the 2012 Modified Project, including the proposed high school.
[2] 1 Gwh = 1,000,000 kwh

Project Natural Gas Demand

The 2012 Modified Project is forecast to consume roughly 429 billion British thermal units (BTUs) of natural gas per year without the optional conversion, or 457 BTUs with the optional conversion, as shown below in Table 5.13-14a and 5.13-14b, respectively. This represents an increase of 105 billion BTUs (or 133 billion BTUs with the optional conversion) as compared to the estimated consumption of the 2011 Approved Project. SCGC expects to have adequate supplies of natural gas for this forecasted natural gas demand, and development of the 2012 Modified Project can be served by existing gas mains located adjacent to the Proposed Project Site (Garcia 2012). Therefore, like the 2011 Approved Project, the 2012 Modified Project would not create a significant impact with respect to natural gas facilities or services.

Table 5.13-14a
Estimated Natural Gas Demand at Buildout
(2012 Modified Project Without Optional Conversion)

Land Use	Quantity	Annual Natural Gas Demand, million BTU	
		Per Unit[1]	Total
Residential Land Uses	**Residents**		
9,500 residential units	23,728	13.7 per capita	**325,073.60**
Non-residential Land Uses	**Square Feet**		
Medical and Science	3,364,000	0.0219 (consumption rate for R&D)	73,671.60
Multi-Use	1,318,200	0.0219 (consumption rate for Office)	28,868.58
Community Commercial	220,000	0.0046 (consumption rate for Retail and Auto Sales)	1,012.00
Subtotal, Non-residential Land Uses	**4,902,200**		**103,552.18**
		Total	**428,625.78**

[1] Source: DEER, 2008.
Residential rates: USDOE 2008. No rates for different residential unit types were available.
Nonresidential rates: Itron 2006.
Specific consumption rates for school uses are not available, but SCGC has indicated that it would be able to meet the demands of the entirety of the 2012 Modified Project, including the proposed high school.

Table 5.13-14b
Estimated Natural Gas Demand at Buildout
(2012 Modified Project With Optional Conversion)

Land Use	Quantity	Annual Natural Gas Demand, million BTU	
		Per Unit[1]	Total
Residential Land Uses	**Residents**		
10,700 residential units	26,679	13.7 per capita	**365,502.30**
Non-residential Land Uses	**Square Feet**		
Medical and Science	3,364,000	0.0219 (consumption rate for R&D)	73,671.60
Multi-Use	783,200	0.0219 (consumption rate for Office)	17,152.08
Community Commercial	220,000	0.0046 (consumption rate for Retail and Auto Sales)	1,012.00
Subtotal, Non-residential Land Uses	**4,367,200**		**91,835.68**
		Total	**457,337.98**

[1] Source: DEER, 2008.
Residential rates: USDOE 2008. No rates for different residential unit types were available.
Nonresidential rates: Itron 2006.
Specific consumption rates for school uses are not available, but SCGC has indicated that it would be able to meet the demands of the entirety of the 2012 Modified Project, including the proposed high school.

Telecommunications

The 2012 Modified Project would require a greater level of telecommunications services compared to the 2011 Approved Project, as the 2012 Modified Project contains a larger number of residential units and a smaller amount of non-residential uses. The impacts of both the 2011 Approved Project and the 2012 Modified Project related to telecommunications facilities and services would be less than significant for the reasons described below.

AT&T would be able to provide telephone infrastructure and service upon request for the 2012 Modified Project (Akin, 2012). As is true for the 2011 Approved Project, an extension of underground cable and conduit and the placement of above-ground telephone equipment cabinets are required to provide service to the 2012 Modified Project. Line extensions charges may apply per Tariff A2 Rule 16. Some relocation of existing telephone infrastructure may be required in order for AT&T to serve the 2012 Modified Project; the cost of any required relocations would be the responsibility of the project applicant or its successor.

As is true for the 2011 Approved Project, the installation and construction of telephone infrastructure would be part of the construction of the 2012 Modified Project; those impacts of such construction and installation are analyzed throughout the various sections of this DSSEIR, and such installation would not cause significant impacts beyond those identified in other sections of this DSSEIR.

Cox Communications will be able to provide cable services to the Proposed Project Site (Cox Communications 2012). Relocation of existing facilities may be required, and placement of new facilities, including above ground cabinets and power supplies, will be required to extend existing infrastructure to serve the 2012 Modified Project. As is true for the 2011 Approved Project, the installation and construction of cable infrastructure would be part of the construction of the 2012 Modified Project; the impacts associated with such installation and construction are analyzed throughout the various sections of this DSSEIR, and such installation and construction would not cause significant impacts beyond those identified in other sections of this DSSEIR.

5.13.4.5 Cumulative Impacts

The 2012 Modified Project, in combination with other projects in the area, would increase the overall demand for electricity, natural gas, and telecommunications in Orange County. The total forecasted increase in electricity demand in SCE's service area between 2008 and 2016 is 13,443 GWh, or 13,443,000,000 kWh. According to the California Energy Commission ("CEC"), energy use in the state is growing at a rate of 1.25 percent per year and peak demand is growing at a rate of 1.35 percent per year (CEC 2009). Air conditioning use is the primary contributor to the growth in peak electricity demand. To meet the growing energy demands of the state, the CEC is implementing metering infrastructure to support stronger demand-response policies. The California Public Utilities Commission has authorized installation of 11.7 million smart electric meters and 5.1 million smart natural gas meters. Smart meters measure energy consumption at intervals of one hour or less, and enable utilities to offer their customers time-based rates for electricity and natural gas (CPUC 2010). In addition, many utility companies offer incentives for recycling older inefficient air conditioners. In addition, the CEC is working to develop dynamic pricing tariffs to reduce demand for electricity at peak periods (CEC 2009). According to SCE, the electrical demands of the 2012 Modified Project at buildout are within the parameters of projected load growth in the Orange County area which SCE is planning to meet (Nelson 2012).

Cumulative development in the vicinity of the Proposed Project Site, including the 2012 Modified Project, would increase the overall demand for natural gas. Based on present conditions of natural gas supply and regulatory policies, SCGC expects to have adequate supplies of natural gas to serve cumulative development, including the 2012 Modified Project (Garcia 2012). The 2010 California Gas Report projects that natural gas consumption in the SCGC service area will decrease from 2,582 million cubic feet ("MMCF") per day in 2010 to 2,467 MMCF per day in 2030. Total supplies are projected to be 3,875 MMCF per day. Therefore, no cumulative impacts related to natural gas are anticipated.

Cox and AT&T would be able to accommodate the needs for telephone, internet, wireless, and cable service for the 2012 Modified Project and other projects in the area (Cox Communications 2012; Akin 2012). Accordingly, no adverse impacts on such services are anticipated.

5.13.4.6 Applicable Mitigation Measures from the 2011 Certified EIR

No mitigation measures were recommended in the 2011 Certified EIR since the 2011 Approved Project's impacts were less than significant without mitigation.

5.13.4.7 Level of Significance Before Additional Mitigation

No significant impacts relating to electric services, natural gas services or telecommunications services have been identified. In addition, PPPs 4-3 through 4-5 and PDF 4-7 listed above would lessen the impact of the 2012 Modified Project on electricity, natural gas, and telecommunications. All 2012 Modified Project impacts related to those services will be less than significant without mitigation.

5.13.4.8 Additional Mitigation Measures for the 2012 Modified Project

No additional mitigation measures are recommended by this DSSEIR since the 2012 Modified Project's impacts are less than significant without mitigation.

5.13.4.9 Level of Significance After Additional Mitigation

No significant impacts relating to electric, natural gas or telecommunications services have been identified for the 2012 Modified Project.