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**AMENDED CEQA GUIDELINES CLEAR THE AIR:
ANALYSIS AND MITIGATION OF GREENHOUSE GAS EMISSIONS**

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I. INTRODUCTION

Anticipated greenhouse gas (“GHG”) emissions must now be analyzed in each project review under the California Environmental Quality Act¹ (“CEQA”). Such analysis is mandated by new amendments to the CEQA Guidelines,² which became effective on March 18, 2010 and must be incorporated into local CEQA procedures by July 16, 2010.³

The new amendments interject a GHG analysis at virtually every stage of the CEQA review process. GHG emissions are to be assessed, quantitatively or qualitatively, in the initial study, which can be based on a threshold of significance developed by the lead agency or other public agencies or experts. If the initial study shows that anticipated GHG emissions will likely have significant environmental impact, the lead agency must prepare an environmental impact report (“EIR”) stating how the emissions will be mitigated, such as by off-site projects, offsets, carbon sequestration, or other mitigation measures. To make the process more cost-effective, lead agencies may analyze and provide for mitigation of GHG emissions at a programmatic level and subsequently incorporate that analysis into CEQA documents prepared for individual

² 14 Cal. Code Regs. §§ 15000-15387 (West 2009).

³ *Id.* §§ 15007 and 15022.

projects. Overall, many public lawyers and agencies may find it frustrating that the new amendments do not mandate a specific approach for GHG analysis and mitigation and do not establish a GHG threshold of significance, which invites legal challenges and provides less certainty as to the sufficiency of a public agency's GHG analysis. Instead, public agencies may rely on thresholds of significance developed by regional air quality districts and will eventually get further guidance from case law as to the appropriate level of GHG analysis and mitigation.

II. CALIFORNIA'S CLIMATE CHANGE LEGISLATION.

"California is going to be the leader in the fight against global warming," famously declared Governor Schwarzenegger on June 1, 2005, at the United Nations World Environment Day in San Francisco.⁴ Accordingly, the Legislature passed Assembly Bill 32 ("AB 32"),⁵ making California the first state in the nation to attempt compliance with the provisions of the Kyoto Protocol to the United Nations Framework Convention on Climate Change, to which the United States is notably not a party. AB 32 required the California Air Resources Board ("ARB") to establish regulations for reduction of California's GHG emissions to 1990 levels by 2020.⁶ Pursuant to this bill, ARB adopted a Scoping Plan, setting forth a framework for future GHG reduction regulations, which regulations must be adopted by 2012.⁷ Many environmental advocates, the California Attorney General's office, and ultimately courts interpreted AB 32 as the Legislature's acknowledgement that GHGs have significant environmental impact and should

⁴ Governor Schwarzenegger stated these words before signing Executive Order S-3-05 establishing new GHG reduction targets. Governor's Remarks at World Environment Day Conference, <http://gov.ca.gov/speech/1885/> (last visited June 28, 2010).

⁵ A.B. 32, 2005-2006 Leg., Reg. Sess. (Cal. 2006).

⁶ Cal. Health & Safety Code § 38550 (West 2009).

⁷ California Air Resources Board, Resolution No. 08-47, Climate Change Scoping Plan, December 11, 2008, http://www.arb.ca.gov/cc/scopingplan/document/final_sp_resolution.pdf; *see also* Cal. Health & Safety Code §§ 38561 and 38562 (West 2009).

thus be analyzed and mitigated in the CEQA process.⁸ This expansive interpretation of AB 32 necessitated amendments to the CEQA Guidelines to identify the role of GHG analysis in the CEQA process.

Recognizing that around 40 percent of California's GHG emissions come from transportation and that such emissions should be reduced by appropriate land use planning, the Legislature further passed Senate Bill 375 ("SB 375")⁹ requiring ARB to develop GHG reduction targets for the automobile and light truck sector for each metropolitan planning organization. Each metropolitan planning organization, in turn, must develop a sustainable communities strategy with development patterns that achieve ARB's GHG reduction targets.¹⁰ Because the sustainable communities strategies cannot supersede local land use authority, SB 375 created a CEQA exemption as an incentive for local transit-oriented residential projects that comply with applicable sustainable communities strategies. This further reinforced the perception that the CEQA review process should include a GHG analysis.

In response to the developments calling for GHG analysis in the CEQA process, the Legislature introduced Senate Bill 97 ("SB 97"),¹¹ requiring the Office of Planning and Research ("OPR") to develop amendments to the CEQA Guidelines to address GHG analysis and mitigation. Pursuant to SB 97, the OPR developed and, on December 30, 2009, the Natural Resources Agency ("NRA") adopted new amendments to the CEQA Guidelines as discussed herein.

⁸ *E.g.*, Order Regarding Settlement, http://ag.ca.gov/cms_attachments/press/pdfs/2007-08-21_San_Bernardino_settlement_agreement.pdf accessible through Attorney General press release <http://ag.ca.gov/newsalerts/release.php?id=1453&>; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70.

⁹ S.B. 375, 2007-2008 Leg., Reg. Sess. (Cal. 2007).

¹⁰ Cal. Gov. Code, § 65080 (West 2009).

¹¹ S.B. 97, 2007-2008 Leg., Reg. Sess. (Cal. 2007).

III. WHAT ARE GREENHOUSE GASES?

Many climate scientists and other experts agree that global warming is very likely caused by emissions of gases, generally referred to as GHGs.¹² According to the U.S. Environmental Protection Agency, some GHGs occur naturally, whereas other are emitted into the atmosphere solely through human activities.¹³ Despite a common understanding of the negative effects of GHGs in general, environmental agencies find it difficult to identify which specific GHGs contribute to climate change.¹⁴ For the purpose of CEQA analysis, the new amendments have defined GHGs **to include** carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.¹⁵ This non-exclusive definition is meant to ensure that lead agencies do not exclude from consideration other GHGs than the primary six if substantial evidence indicates that such gases may have significant environmental effect.¹⁶

IV. HOW SHOULD GHG EMISSIONS BE ADRESSED IN THE INITIAL STUDY?

Pursuant to CEQA, a lead agency conducts an initial study, usually using a checklist, to determine whether a proposed project may have a significant effect on the environment such that an EIR for the project is required.¹⁷ A sample initial study checklist is provided as Appendix G to the CEQA Guidelines and has now been amended to ask: (1) whether the project will directly or indirectly generate GHG emissions that may have a significant environmental impact; and (2)

¹² Intergovernmental Panel on Climate Change, Working Group I Report: The Physical Science Basis of Climate Change (2007), Ch. 4, 339, <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html> (last visited May 7, 2010).

¹³ Climate Change – Greenhouse Gas Emissions, <http://www.epa.gov/climatechange/emissions/index.html> (last visited May 7, 2010).

¹⁴ Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97, p. 69, http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf (last visited June 28, 2010) [hereinafter *Final Statement*].

¹⁵ 14 Cal. Code Regs. § 15364.5 (West 2009).

¹⁶ Final Statement, *supra* note 14, 69.

¹⁷ 14 Cal. Code Regs. § 15063 (West 2009).

whether the project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.¹⁸ These questions are added to the checklist to emphasize that GHGs should be seriously considered when determining whether an extensive environmental review is required for the project.¹⁹ Article 5 of the CEQA Guidelines has further been amended to provide guidance on how to answer these new questions.

1. *The Initial Study Requires Some Assessment of the Resulting GHG Emissions From a Proposed Project.*

The new amendments provide that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHGs resulting from a project.²⁰ To do this, agencies have discretion to either: (1) use a model or methodology to **quantify** GHG emissions resulting from a project; or (2) rely on a **qualitative** analysis or performance based standards.²¹ When adopting the new amendments, the NRA indicated that a quantitative assessment is appropriate for projects that include large commercial developments, whereas a qualitative assessment is appropriate for smaller projects, such as a small habitat restoration project.²² Further, in assessing the significance of impacts from GHG emissions on the environment, agencies should consider: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project's emissions exceed an applicable threshold of significance; and (3) the extent to which the project complies with regulations or requirements adopted through a public process to implement a statewide, regional, or local plan for GHG reduction or

¹⁸ *Id.* Appendix G, Question VII.

¹⁹ Final Statement, *supra* note 14, 75.

²⁰ 14 Cal. Code Regs. § 15064.4 (West 2009).

²¹ *Id.*

²² Final Statement, *supra* note 14, 23-24.

mitigation.²³ If there is substantial evidence that notwithstanding compliance with the adopted regulations or requirements a possible cumulative effect is still considerable, the lead agency must prepare an EIR for the project.²⁴

2. *The Initial Assessment of GHGs May Be Based on a Threshold of Significance.*

As noted above, the significance of the environmental effect of GHGs can be determined by considering whether emissions exceed a threshold of significance. Such a threshold is an “identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.”²⁵ However, a threshold may not be conclusive for the determination of significance.²⁶ If there is substantial evidence that a project may have significant environmental impact, an EIR must be prepared despite compliance with a threshold.²⁷

The new amendments do not provide a threshold of significance. Although many public comments claimed that most public agencies would not be qualified to develop their own thresholds and requested a statewide threshold of significance for GHGs, the NRA found that such statewide threshold would be beyond the mandate of SB 97.²⁸ Instead, the new amendments encourage public agencies to develop thresholds through a public review process, which thresholds must be adopted by ordinance, resolution, rule, or regulation based on

²³ 14 Cal. Code Regs. § 15064.4 (West 2009).

²⁴ *Id.*

²⁵ *Id.* § 15064.7(a).

²⁶ *Id.* § 15064.4; *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342.

²⁷ *Id.*

²⁸ Final Statement, *supra* note 14, 84.

substantial evidence.²⁹ No particular expertise is required for developing such thresholds and they may be drawn from existing environmental standards in statutes and regulations.³⁰ However, a threshold may not take into account the economic consequences of setting the threshold at a low level.³¹ Instead, such considerations should be addressed when determining the feasibility of mitigation and other alternatives.³² Should an agency choose to develop its own thresholds, it can use the California Air Pollution Control Officers Association's White Paper on developing GHG thresholds.³³

Alternatively, agencies may consider thresholds developed by other public agencies or recommended by experts, provided that the decision to rely on such a threshold is supported by substantial evidence.³⁴ One option is to use new thresholds, adopted by the Bay Area Air Quality Management District on June 2, 2010, which deem GHG emissions resulting from operations of any stationary source to be significant if they exceed 10,000 metric tons of carbon dioxide equivalent per year.³⁵ For non-stationary sources, the threshold can be either compliance with a qualified GHG reduction strategy, 1,100 metric tons of carbon dioxide equivalent per year, or 4.6 metric tons of carbon dioxide equivalent per service population (including residents and employees) per year. The South Coast Air Quality Management District is also currently

²⁹ 14 Cal. Code Regs. § 15064.7(a)-(b) (West 2009).

³⁰ Final Statement, *supra* note 14, 85; *see also Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1107-1108.

³¹ Final Statement, *supra* note 14, 85.

³² *Id.*

³³ Final Statement, *supra* note 14, 30; CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, January 2008, <http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf> (last visited June 29, 2010).

³⁴ 14 Cal. Code Regs. § 15064.7(c) (West 2009).

³⁵ Adopted Air Quality CEQA Thresholds of Significance, http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Adopted%20Thresholds%20Table_6_2_10.ashx (last visited June 29, 2010).

developing thresholds with respect to industrial projects.³⁶ Lead agencies may, however, not rely thresholds adopted by other public agencies pursuant to laws other than CEQA, such as the *de minimis* threshold that has been developed by ARB under AB 32, because such thresholds may not address the level at which environmental harm may occur.³⁷

3. *Agencies May Determine that a Project's Cumulative Impact is Less Than Significant if the Project Complies With Requirements Set Out in Certain Plans and Regulations.*

A lead agency may find that because a project complies with requirements in a plan or mitigation program, its potential cumulative impact is less than significant.³⁸ Such a plan or program must: (1) have been previously approved; (2) contain specific requirements that avoid or substantially lessen the cumulative problem within a defined geographic area; and (3) be either specified in law or approved by a public agency with jurisdiction over the affected resources.³⁹ The amendments provide that such a plan or program includes: (1) habitat conservation plans as defined in the Federal Endangered Species Act;⁴⁰ (2) natural community conservation plans as defined in the California Natural Community Conservation Planning Act;⁴¹ and (3) plans or regulations for the reduction of GHG emissions.⁴² GHG reduction plans are currently not legally defined, leaving it to lead agencies to determine whether plans or regulations satisfy the criteria above. It is, for example, suggested that the GHG regulations that ARB is required to adopt by 2012 pursuant to AB 32 may meet this standard.⁴³

³⁶ Final Statement, *supra* note 14, 25-26.

³⁷ Final Statement, *supra* note 14, 26.

³⁸ 14 Cal. Code Regs. § 15064(h)(3) (West 2009).

³⁹ *Id.*

⁴⁰ 16 U.S.C. § 1539.

⁴¹ Cal. Fish & Game Code §§ 2800-2835 (West 2009).

⁴² 14 Cal. Code Regs. § 15064(h)(3).

⁴³ Final Statement, *supra* note 14, 15.

In order for a project to be able to comply with a GHG reduction plan, the plan must actually address the emissions that would result from such a project.⁴⁴ Further, because CEQA does not define “compliance” in this respect, the term may be construed in light of case law interpreting the requirement that local zoning be consistent with a local agency’s general plan.⁴⁵ A zoning ordinance is consistent with a general plan if, considering all the aspects of the ordinance, it furthers the objectives and policies of the general plan and does not obstruct their attainment.⁴⁶

V. HOW SHOULD GHG EMISSIONS BE ADDRESSED IN AN EIR?

If a project’s resulting GHGs may have a significant environmental impact, an EIR must be prepared.⁴⁷ The CEQA Guidelines with respect to the preparation and the content of an EIR have now been amended to address GHG emissions.

1. *An EIR Should Discuss a Project’s Inconsistency with Plans That Address GHG Emissions.*

An EIR must discuss inconsistencies between the project and applicable specific plans or regional plans.⁴⁸ This is because specific plans likely address GHG emissions and regional plans include GHG reduction plans.⁴⁹ Thus, discussion of such plans in an EIR is necessary to ensure that GHG analyses from those plans are addressed.⁵⁰

⁴⁴ *Id.* 27.

⁴⁵ *Id.*

⁴⁶ *City of Irvine v. Irvine Citizens Against Overdevelopment* (1994) 25 Cal. App. 4th 868, 879.

⁴⁷ 14 Cal. Code Regs. § 15064 (West 2009).

⁴⁸ *Id.* § 15125.

⁴⁹ Final Statement, *supra* note 14, 38.

⁵⁰ *Id.*

2. Lead Agencies Should Consider the Wider Implications of Local GHG Emissions.

While most projects reviewed under CEQA are local in scope, the new amendments recognize the global nature of GHG emissions and climate change. Generally, when determining whether to approve a project, lead agencies are required to balance the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks.⁵¹ With respect to GHG emissions, the amendments emphasize that such benefits can include regional or statewide environmental benefits.⁵² The reason is that, in the context of GHG emissions, projects may cause adverse environmental impacts locally but still provide an overall benefit of reducing GHG emissions on a statewide or regional level.⁵³ For example, a city may allow increased housing density in a region where many jobs are available in order to reduce GHG emissions from vehicles and transportation on a wider scale.⁵⁴

3. GHG Emissions Can Be Mitigated by Off-Site Projects, Offsets, Sequestration, and other Mitigation Measures.

The amendments do not provide any specific mitigation measures that must be used for GHG emissions. Instead, the effects of GHGs can be mitigated by *inter alia*: (1) compliance with mitigation programs or GHG reduction plans adopted by the lead agency at a planning level; (2) implementation of project features, project design, or other measures, such as increased community density and accessibility to job centers; (3) if a project cannot be modified to sufficiently reduce GHG emissions, mitigation can be achieved by off-site measures, such as carbon offsets, community energy conservation projects, and off-site forestry projects;

⁵¹ 14 Cal. Code Regs. § 15093 (West 2009).

⁵² *Id.*

⁵³ Final Statement, *supra* note 14, 36.

⁵⁴ *Id.*

(4) sequestration of GHGs to prevent them from being released into the atmosphere, which may be achieved by reforestation, conservation forest management, urban forestry, and fuels management; and (5) for adoption of a general plan, long range development plan, or GHG reduction plan, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis.⁵⁵ While an agency has wide discretion in selecting mitigation measures for a project, an EIR must thoroughly discuss the selected mitigation measures and cannot defer any portion of the mitigation analysis to after the approval of the EIR.⁵⁶ More certainty as to the sufficiency of GHG mitigation measures is expected as courts rule on challenges to specific project and EIR approvals.

Additionally, the Attorney General's Office has published a list of GHG mitigation measures.⁵⁷ While not binding on lead agencies, this list provides helpful examples of measures that can be included as design features of a project, required as changes to the project, or imposed as mitigation, whether undertaken directly by the project applicant or funded by mitigation fees.⁵⁸

VI. TIERING AND STREAMLINING THE ANALYSIS OF GHG EMISSIONS.

To streamline the CEQA process and avoid duplication of GHG analysis, the new amendments allow lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long range development plan, or a

⁵⁵ 14 Cal. Code Regs. § 15126.4 (West 2009).

⁵⁶ *Id.*; *Communities for a Better Environment v. City of Richmond* (2010)184 Cal.App.4th 70.

⁵⁷ Addressing Climate Change at the Project Level, http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf (last visited June 29, 2010).

⁵⁸ *Id.* 1.

separate plan to reduce GHG emissions.⁵⁹ Subsequent project-specific EIRs may tier from or incorporate by reference such programmatic analysis and use it for cumulative impact analysis.⁶⁰

Another streamlining measure allows lead agencies to analyze and mitigate GHG emissions in various voluntary plans for reduction of GHG emissions, such as climate action plans and GHG reduction plans.⁶¹ Because such plans are generally not subject to any legislative requirements, the amendments are meant to help lead agencies to assess whether such plans are appropriate for a CEQA analysis.⁶² Thus, the amendments provide that such plan should: (1) quantify existing and expected GHG emissions resulting from activities within a defined geographic area; (2) establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; (3) identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area; (4) specify measures, including performance standards, which if implemented on a project-by-project basis would collectively achieve the specified emissions level as demonstrated by substantial evidence; (5) establish a monitoring mechanism and require amendments if the specified emissions level is not achieved; and (6) be adopted in a public process following environmental review.⁶³

Moreover, any EIR may incorporate by reference all or portions of any document describing the environmental effects of GHG emissions, provided it is a public record or is generally available to the public.⁶⁴

⁵⁹ 14 Cal. Code Regs. § 15183.5(a) (West 2009).

⁶⁰ *Id.* § 15130(b) and (d).

⁶¹ *Id.* § 15183.5(b).

⁶² Final Statement, *supra* note 14, 90.

⁶³ 14 Cal. Code Regs. § 15183.5(b) (West 2009).

⁶⁴ *Id.* § 15150.

VII. CONCLUSION

While the new amendments provide clear directions as to when GHG emissions should be analyzed in the CEQA process, public agencies are left to deal with the specifics. They have discretion to choose a methodology for GHG analysis in the initial study. Thus, when assessing the significance of GHG emissions, a lead agency can elect to assess anticipated GHG emissions quantitatively based on a numeric threshold or qualitatively based on the project's compliance with certain performance standards, plans, or regulations. The amendments do not provide a numeric threshold of significance, but lead agencies may rely on thresholds developed by other public agencies, such as those recently adopted by the Bay Area Air Quality Management District. Further, if an EIR must be prepared, a lead agency can choose various forms of mitigations for GHG reduction, including off-site projects, offsets, and carbon sequestration. GHG emissions can also be analyzed thoroughly at a programmatic level and such analysis incorporated into subsequent EIRs. As public agencies start implementing the new provisions of the CEQA Guidelines, courts will likely provide more specific guidance as to the appropriate level of GHG analysis in the CEQA process.⁶⁵

⁶⁵ On April 26, 2010, the first appellate opinion regarding GHG analysis under CEQA was issued. The Court of Appeal held that GHG mitigation was insufficient where an EIR required a project applicant to submit a mitigation plan one year after the approval of the project and listed some mitigation measures for applicant's consideration. Mitigation measures were not meant to be developed by a bilateral negotiation between the applicant and the lead agency after project approval, but rather in the CEQA review process that also involves other interested agencies and the public. In dicta, the Court also mentioned that the EIR made no effort to calculate the expected GHG reductions from each proposed mitigation measure, suggesting that this should be included in lead agencies' GHG mitigation analysis. *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70. As courts review similar challenges in the future, the required level of analysis of GHG emissions and mitigation under CEQA will become clearer.