Thinking Globally When Acting Locally:

How Will CEQA Adapt to A Changing Environment?

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Imagine California in the year 2100. Dehydration, heat stroke, and other heat-related illnesses are crippling residents of Sacramento, Los Angeles, and San Bernardino. The Sierra-Nevada snowpack has declined by more than 70 percent eliminating snow-related recreational activities, and hampering hydropower generation. A combination of rising sea levels and decreased snowmelt has restricted California's supply of fresh drinking water. Wine grapes are ripening faster, milk production is reduced, pests and pathogens are invading California's farmland, and forest productivity has declined. If the California Climate Change Center is correct, these scenarios could become a reality, and land development as we know it could come to a screeching halt.¹

California has long been a national and global leader in environmental protection. Recognizing the "serious threat to the economic well-being, public health, natural resources, and the environment of California," ² posed by climate change, last year the Legislature adopted the California Global Warming Solutions Act of 2006 (the "Act").³ Among other things, the Act requires the State Air Resources Board to adopt regulations requiring monitoring and annual reporting of greenhouse gas emissions, and to set a greenhouse gas emissions limit to be achieved by 2020.⁴ However, despite its ambitious agenda, the Act does not purport to expressly preempt the field of regulating greenhouse gas emissions or to fully address and mitigate climate change's predicted effects.⁵

Together with the Act, California's existing environmental laws provide a foundation for addressing climate change's identified threat to California's environment and economy, and a means by which the state can encourage other states, the federal government, and other countries to act to reduce greenhouse gas emissions and counter the effects of climate change.⁶ The question specifically addressed in this article is whether one of California's most important and comprehensive environmental laws-the California Environmental Quality Act ("CEQA")7 -can meaningfully address the significant and perhaps inevitable environmental consequences of climate change through its project specific review. As CEQA practitioners have observed over the past year or so, comments faulting public agencies for failing to adequately address the consequences of climate change when evaluating land development projects are becoming commonplace. In fact, two lawsuits have already been filed against the City of Banning and the State Reclamation Board alleging that those agencies failed to comply with CEQA by not addressing climate change-related impacts in Environmental Impact Reports ("EIRs"). 8 The issue has also caught the attention of the Attorney General-pitting the state against local agencies charged with complying with CEQA's detailed environmental review requirements. Over the past year, the Attorney General's office has submitted public comments during CEQA's public

review period to agencies considering transportation and land use plans urging those agencies to consider and minimize the global warming impacts of their plans.⁹

Because CEQA is already an integral part of California land development, as discussed further below, it offers public agencies the opportunity to disclose, analyze, and mitigate the potential consequences of climate change in the context of specific projects. However, in the absence of further state or federal direction on the issue of climate change, and as a result of its essentially project-specific focus, "fair share" mitigation limits, and relatively limited geographic scope, it is unlikely that CEQA's environmental review requirements can effectively address and significantly mitigate California's contributions to the global problem.

I. CEQA'S ENVIRONMENTAL PROTECTION MANDATE

Adopted in 1970, CEQA's primary goal is environmental protection.¹⁰ To further this goal, CEQA compels public agencies and governmental officials at all levels to study the environmental impacts of proposed activities prior to approving or carrying out those activities.¹¹ As summarized by the Resources Agency in the CEQA Guidelines,12 this mandate requires that: (1) governmental decisionmakers and the public be informed about the potential, significant environmental effects of proposed activities; (2) environmental damage be avoided or significantly reduced; (3) significant, avoidable damage to the environment be prevented through feasible changes in projects; and (4) the reasons behind approval of a project with significant environmental consequences be disclosed.13 However, CEQA isn't concerned with taking only a snapshot of the environment or maintaining the environmental status quo. CEQA also seeks to enhance and develop the environmental quality of the state, preserving and protecting California's environment now and in the future.14

The "heart of CEQA" is the EIR.¹⁵ The CEQA Guidelines define an EIR as "a detailed statement prepared under CEQA describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects."¹⁶ Absent an applicable statutory or categorical exemption, an EIR must be prepared for any project a public agency intends to approve or carry out that "may have a significant effect on the environment."¹⁷ In terms of formal content requirements, an EIR must include a summary of the proposed action and its consequences,¹⁸ a detailed project description,¹⁹ a description of the physical environmental conditions in the vicinity of the project,²⁰ consideration and discussion of significant environmental effects,²¹ consideration and discussion of mitigation measures proposed to minimize significant environmental effects, 22 and consideration and discussion of alternatives to the proposed project. 23

II. OPPORTUNITIES AND CONSTRAINTS FOR ADDRESSING CLIMATE CHANGE IN ENVIRONMENTAL IMPACT REPORTS

As a matter of California environmental law, EIR's provide the most obvious opportunity for identification, discussion, and analysis of the environmental effects of climate change in the context of specific land development projects. When evaluating those land development projects under CEQA, the question arises whether the project, if approved, will have an impact on the environment that causes (directly or indirectly) or adds to the problem of rising temperatures. For example, will the project release or cause the release of carbon dioxide (CO_2) and other gases into the atmosphere and thereby contribute to localized temperature increases or other climate change-related impacts? Will the project be a significant source of mobile emissions? Does the project require additional energy?

In addition to these questions, the question also arises whether climate change will have direct or indirect significant impacts on a project, or future occupants or end-users of the project, that must be disclosed and analyzed in an EIR. This inquiry is particularly relevant in the context of development located close to waterways or floodplains, or in other areas of the state most prone to an increase in extreme conditions as a result of climate change. For example, if a project is developed, will project end-users be placed in harm's way? Will an adequate water be available over the long term to supply the project?

As detailed below, an EIR provides various opportunities for addressing these types of questions. These opportunities are not, however, without attendant limitations.

A. Project Description

The required project description section of an EIR offers the first opportunity for an EIR to identify components of a proposed land development project that could potentially affect or be affected by the earth's rising temperatures or their consequences. Specifically, CEQA requires an EIR's project description to include: (1) a map of the precise boundaries and location of the project (preferably topographic); (2) a regional map showing the location of the project; (3) a statement of the project objectives; (4) a general description of the project's technical, economic, and environmental characteristics; and (5) a statement describing the intended uses of the EIR.²⁴

The required regional and boundary maps can provide public agencies and officials with a first look at whether a project may be affected by climate change. As noted by the California Climate Change Center, climate change could subject California's coastal regions to increasing sea levels, more intense coastal storms, and warmer water temperatures.²⁵ The maps included in an EIR's project description should serve to focus agencies and officials on particularly problematic locations or projects. Additionally, the required statement of project objectives may further serve to inform and notify agencies and officials of risks and goals inherent in a particular project.

With climate change at the forefront, CEQA practitioners can also expect a project's anticipated duration or life to become

an important (and controversial) component of an EIR's project description. As an illustration of this point, in Kings County Farm Bureau v. City of Hanford, 26 plaintiffs argued that an EIR's project description was inadequate because it erroneously assumed a 20-year, rather than a 30-year, project life. As a result of this error, the project's impacts were alleged to have been underestimated by 50 percent.²⁷ Because most climate change studies available today evaluate potential environmental impacts as of a fixed date (such as "by the end of the century"28), a project's expected life is of prime importance. For example, if a project is expected to have a life of only 10 or 15 years, it may be the case that the threats associated with climate change are of little or no consequence, and any potential impacts therefore insignificant. However, if a project's life is expected to be 50 or more years, the impact of a project on the environment may be significant, and climate change's adverse consequences particularly pronounced.

B. Environmental Setting and Baseline

Climate change's known threat may also affect a project's environmental setting and baseline. Under section 15125(a) of the CEQA Guidelines:

An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.²⁹

As further clarification of the requirement, section 15125(c) provides that:

Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to the region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.³⁰

The environmental setting for a project is a critical component of an EIR, as it "will *normally* constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."³¹ Without an adequate baseline description, analysis of impacts, mitigation measures, and alternatives is impossible.³²

With climate change now identified as an impending threat, the question presented is whether an EIR's proper baseline consists of only present conditions, or whether it also consists of reasonably foreseeable future conditions that will occur in the absence of the project. In light of the known consequences of climate change, it may be the case that a "future" baseline is appropriate for land development projects located in areas particularly sensitive to climate change. For example, assuming that the potential consequences of climate change are quantifiable, for a project that is expected to be implemented over the long-term, potential changes in the project's surrounding environmental conditions may need to be disclosed.

Caselaw does not provide clear direction on the point, and the issues presented by climate change seem to be substantially different from other baseline questions previously evaluated. It has been held, for example, that evaluation of the environmental impacts of a proposed general plan amendment against a hypothetical environment impacted by full build-out of the existing general plan does not comply with CEQA's environmental review requirements. ³³ Rather, CEQA is concerned with the adverse impacts of a project on the actual existing environment.³⁴ These cases might seem to suggest that the appropriate baseline is always the existing environment today, not a future, altered environment.

However, in at least one case, it has also been held that an EIR's failure to disclose proposals that would have affected surrounding environmental conditions in the future rendered the EIR inadequate because the environmental setting section of the EIR "fail[ed] to set the stage for a discussion of the cumulative impact of the [project]."³⁵ While noted CEQA commentators have observed that such a discussion is more properly made a component of an EIR's analysis of future cumulative impacts (and not the environmental setting or baseline),³⁶ in the context of climate change, the absence of a description of anticipated future conditions may fail to adequately set the stage for analysis of a project's potentially significant impacts.

In light of the wealth of continually evolving scientific data on climate change and its predicted environmental impacts it seems likely that CEQA will, at a minimum, require a recognition by public agencies that the "existing" environment is changing. To the extent future temperature increases can be forecast with some degree of confidence, and without engaging in pure speculation, this information is properly made part of the environmental setting or baseline in an EIR for purposes of facilitating an understanding the significant effects of a particular land development project.

C. Identification and Analysis of Significant Environmental Effects

CEQA also requires an EIR to "identify and focus on the significant environmental effects of the proposed project."³⁷ A "significant effect on the environment" is a "substantial, or potentially substantial, adverse change in the environment."³⁸ "Environment" is defined as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance."³⁹ Effects on air and water and other natural systems, including ecosystems, are feffects, which, if significant, must be analyzed in an EIR.⁴⁰ Compliance with these standards likely requires agencies to consider a project's climate change-related environmental impacts and attempt to determine whether those impacts are

significant.

It is the lead agency's responsibility to determine, based on substantial evidence in the project's administrative record, whether or not a particular impact is significant.⁴¹ To the extent possible, these significance determinations must be based on scientific and factual data.42 Depending upon the nature of the project and its environmental setting, varying thresholds of significance may apply, and lead agencies must necessarily make policy decisions in distinguishing between significant and insignificant environmental impacts.43 CEQA recognizes that a certain degree of forecasting is necessary, and while not requiring perfection, it does require a public agency to use its best efforts to find out and disclose all that it reasonably can.44 CEQA does not, however, require an agency to speculate as to the potential impacts of a project.⁴⁵ CEQA also does not require an agency to conduct every possible study to determine the potential significant impacts of a project.46

One question raised by the impending threat of climate change is the extent to which public agencies must conduct individual studies and analysis to determine and quantify a particular project's climate change-related impacts. While there is an abundance of information available as to the climate change problem generally, it seems to be the case that limited information exists as to the particular incremental impacts of small projects on the greater problem.

While a lead agency is not required to conduct every possible study in an effort to determine a project's climate change-related impacts, the agency must sufficiently explore a project's potential impacts, and absent a good-faith investigation, cannot simply deem an impact significant or insignificant. To illustrate this point, in Berkeley Keep Jets Over The Bay Committee v. Board of Port Commissioners, 47 the First District Court of Appeal found that CEQA required the Port of Oakland to meaningfully attempt to quantify the amount of mobile-source emissions that would be emitted from normal operations under a proposed airport expansion plan, including an analysis of whether those emissions would result in any significant health impacts.48 It was not enough that the Port simply classified the effect as "significant" in an EIR - CEQA required supporting quantitative analysis. Applied in the context of climate change, this case indicates that, at a minimum, a public agency must attempt to quantify a project's greenhouse gas emissions and climate-change impacts.

With climate change in mind, the following provision of CEQA Guidelines section 15126.2(a) is also particularly relevant:

[T]he EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there.⁴⁹

In addition to evaluating the potential impacts of a specific project, section 15126.2(a) appears to require that CEQA analyze the impact of preexisting—or at least independently existing-environmental conditions on a project.

One case in this area (which may have been incorrectly decided) took the contrary position, and concluded that the purpose of CEQA is to protect the environment from projects, not to protect projects from the environment.⁵⁰ Notwithstanding this precedent, when considering the nature of climate change's potential consequences, evaluation of the potential for a project to bring people into a potentially dangerous—but previously unoccupied—area or environment is likely required. CEQA clearly requires a "big-picture" evaluation of significant environmental effects.⁵¹

These requirements are not limitless, and do not require the global problem to be evaluated or solved by an individual project. While it is appropriate for local agencies to consider whether a project will significantly or incrementally contribute to climate change, and whether climate change could adversely affect the project and its inhabitants, it is not appropriate for an agency to place a disproportionate burden of addressing climate change—which is, after all, a problem of global proportions—on an individual project. As discussed further below, any mitigation measures required to mitigate a project's significant environmental impacts must be "roughly proportional" to the identified impacts of the project.⁵²

D. Cumulative Impacts

Perhaps most important with respect to identifying and analyzing the environmental consequences of climate change is CEQA's requirement that an EIR discuss the cumulative impacts of a project when those impacts are cumulatively considerable.⁵³ The CEQA Guidelines define "cumulative impacts" as follows:

'Cumulative impacts' refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.⁵⁴

A project's incremental environmental effects, even if individually limited, are "cumulatively considerable" when they are "significant when viewed in connection with the effect of past projects, the effects of other current projects, and the effects of probable future projects."⁵⁵ This less-than-clear concept seems to accurately describe any project's greenhouse gas emissions which contribute to climate change. As echoed by one court:

One of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the best example is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem.⁵⁶

CEQA has responded to the clear threat of incremental environmental degradation by requiring disclosure and analysis of potentially significant cumulative impacts.⁵⁷

In the context of climate change, the question is whether any additional emissions should be considered significant in light of the serious nature of the already existing problem.⁵⁸ For example, in *Kings County Farm Bureau v. City of Hanford*, the Fifth District Court of Appeal found a cumulative impacts analysis inadequate because it "improperly focused upon the individual [coal fired cogeneration plant] project's relative effects and omitted facts relevant to an analysis of the collective effect [the project] will have upon air quality."⁵⁹ Specifically, the analysis should have focused on the "collective or combined effect of energy development."⁶⁰

The geographic scope of CEQA's required cumulative impact analysis is still defined by local agencies on a rather ad hoc basis,61 notwithstanding that it is clear that CEQA requires analysis of potentially significant environmental impacts caused by a project outside of the project area, and beyond the lead agency's geographic boundaries⁶², and that projects meeting certain criteria area considered projects of "statewide, regional, or areawide significance" which require broader circulation of CEQA documents among state and regional agencies.⁶³ In addressing climate change, local agencies that typically have approval authority over land use entitlements and development proposals may balk at analyzing a project's impact on the global problem,64 even though such effects will obviously also be experienced areawide, regionally and statewide to varying degrees. Agencies may believe that they are ill-equipped or that they lack expertise to analyze impacts occurring on a global scale. However, lead agencies are required to treat a project as one of statewide, areawide and regional significance if "it has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located."65 A project with the potential for significant climate change-related effects is certainly one with statewide, regional, and areawide significance, and the geographic scope of analysis may therefore extend beyond what local agencies and CEQA practitioners have become accustomed to.

Notably, difficulty in quantifying or assessing a cumulative impact does not excuse an agency's failure to disclose and analyze that potentially significant impact.⁶⁶ Rather, such difficulty merely reduces the level of specificity required in an EIR.⁶⁷ Ultimately, cumulative impact discussions in EIR's are governed by what is practical and reasonable,⁶⁸ and it would appear to be practical and reasonable for EIR's to discuss a project's contributions to greenhouse gas emissions to some degree.

E. Mitigation Measures

If significant environmental effects have been identified, an EIR must describe feasible measures that could minimize, reduce, or avoid those effects.⁶⁹ Feasible mitigation measures are those which can be "accomplished within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."70

Of particular relevance in the climate change context is the CEQA Guidelines' prohibition on requiring mitigation measures that are not carefully tailored to address the actual impacts of a project. Section 15126.4(a)(4) of the CEQA Guidelines makes clear that mitigation measures must be consistent with all applicable constitutional requirements, including the "essential nexus" and "rough proportionality" standards.⁷¹ Individual, project-specific mitigation measures cannot effectively address the global problem.

While only indirectly related to greenhouse gas emissions or global warming, CEQA does require that energy conservation measures be implemented where appropriate to mitigate significant environmental impacts.⁷² Examples of energy conservation measures are set forth in Appendix F to the CEQA Guidelines, and include potential measures to reduce wasteful, inefficient, and unnecessary consumption of energy during construction, operation, maintenance and/or removal, reducing peak energy demand, alternate fuels, and recycling efforts. Given the significant emissions of greenhouse gases associated with the production of energy generation by plants powered by fossil fuels, this type of standardized mitigation may help to slow or reduce global warming and address the impacts of climate change.

III. CLIMATE CHANGE'S CONSEQUENCES AND IMPLICATIONS FOR CEQA COMPLIANCE

The State legislature has declared that climate change, if not effectively addressed, poses a serious threat to California's environment and economy. There is also little doubt that opponents of development projects throughout the state will use climate change to attempt to prevent development projects from moving forward at all, notwithstanding the Supreme Court's admonition that "rules regulating the protection of the environment must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development and advancement."⁷³

As CEQA practitioners know, CEQA sets a very low threshold for requiring preparation of an EIR. An EIR must be prepared whenever it can be "fairly argued" on the basis of substantial evidence that a project may have a significant environmental impact.⁷⁴ In light of the growing scientific consensus that climate change will cause drastic environmental consequences, this standard will likely be easy for project opponents to meet, and may force preparation of EIR's for some projects that would not, in the past, have normally required an EIR.

During this year, CEQA practitioners should receive the first indication from the courts as to whether, and if so how, climate change must be addressed in EIR's. In November of 2006, the Center for Biological Diversity filed a petition for writ of mandate against the City of Banning alleging, among other things, that the EIR prepared for a 1,500 unit subdivision project failed to contain an analysis of the project's greenhouse gas emissions and global warming impacts.⁷⁵ A similar lawsuit has been filed in Sacramento Superior Court challenging a large residential project proposed to be built behind a new levee in the San Joaquin-Sacramento River Delta, resulting in a tentative decision as of the time this article was submitted.⁷⁶ Both lawsuits appear to be based on generally available information about global warming, and project characteristics such as vehicle trips generated, energy use, and location, and do not appear to involve petitioners' use of project specific climate change data.

Because CEQA does not prevent a public agency from approving projects with significant environmental effects,⁷⁷ it may be the case that climate change's only real effect on CEQA compliance is that the use of statements of overriding considerations is increased. As set forth in section 15093(a) of the CEQA Guidelines:

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'⁷⁸

Cities and counties throughout the state may wish to defer grappling with the issue and instead confront the consequences of climate change in the future. There may be public benefits, such as needed housing and infrastructure, that in the present outweigh or take precedence over the risks associated with climate change. CEQA currently allows such an approach, if proper, evidence-supported findings are made.

At some point in the future, state and federal legislation may prevent a local agency from readily overriding a project's significant environmental effects. For example, currently pending before the Legislature is Assembly Bill No. 162, which, if adopted, would require all local jurisdictions to include in the land use element of their general plans an identification of those areas covered by the general plan that are within a mapped floodplain. Additionally, the legislation would require a general plan's conservation element to include information about all rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management. Once this information and related standards are in place in local planning documents, local agencies may find that there are fatal inconsistencies between proposed land development projects and their general plans.⁷⁹ Regulations adopted pursuant to the California Global Warming Solutions Act of 2006 may have a similar effect.⁸⁰

Climate change may also frighten public agencies into disapproving projects solely because of the prospect of climate change-related environmental damage. While CEQA allows agencies to disapprove projects in order to avoid one or more significant effects on the environment,⁸¹ agencies will need to be careful to avoid claims that such disapproval constitutes inverse condemnation.⁸²

Regardless of the particular compliance-related effects of climate change, there is no doubt that the issue will make CEQA compliance even more expensive. With agencies authorized to pass along CEQA-related fees and costs to project applicants, the applicants and the end-users will be responsible for paying for analysis of climate change-related environmental impacts.⁸³

IV. ADAPTING CEQA TO ADDRESS CLIMATE CHANGE Because climate change is by its very nature fundamentally a global problem, calling for national and international solutions, CEQA is ill-equipped to resolve it through the required project-specific review. Nevertheless, CEQA can contribute to resolution of the problem. Within the CEQA framework, it seems apparent that statewide standards—including thresholds of significance and standardized mitigation measures—should be established to assist local agencies and project proponents with identifying, analyzing, and mitigating significant environmental effects related to climate change.

For example, a new section, similar to section 15064.5 of the CEQA Guidelines, could be added to the CEQA Guidelines. Section 15064.5 of the CEQA Guidelines sets statewide standards for determining the significance of impacts to archaeological and historical resources. Specifically, that section identifies thresholds of significance, as well as identifying appropriate and adequate mitigation measures. In 2004, such an approach was taken with respect to oak woodlands located within counties.⁸⁴ In Public Resources Code section 21083.4, the Legislature set the policy of the state with respect to oak woodlands, and provided standardized mitigation. With respect to climate change, similar statewide standards could also ultimately be set by the State Air Resources Board in the course of its implementation of the Global Warming Solutions Act of 2006.

It may also be appropriate for CEQA to fix the environmental baseline with respect to climate change, as it has done in the context of military base reuse.⁸⁵ In that context, the baseline is established at the time the federal decision for closure or realignment of a base or reservation becomes final, and impacts that do not exceed the baseline physical conditions shall not be considered significant.⁸⁶

Lastly, it may be appropriate for CEQA to provide certain exemptions or partial exemptions for certain types of projects, including projects located in areas less likely to contribute to, or not particularly sensitive to, the effects of climate change. For example, CEQA today exempts certain projects located in "urbanized areas"⁸⁷ from CEQA's detailed environmental review requirements.⁸⁸ By providing such exemptions, CEQA could essentially encourage development to be located in areas which would reduce greenhouse gas emissions (e.g., by reducing vehicle miles traveled in connection with a residential in-fill development) and in areas not particularly susceptible to the adverse effects of climate change (such as flooding or wildfires), while discouraging land development elsewhere.

V. CONCLUSION

In light of the broad range of impacts that climate change is predicted to have on California, identification and mitigation of those impacts is essential to the continued viability of the State's citizens, businesses, economy, natural resources, agricultural production and environment. CEQA will likely play a significant role in informing public agencies, governmental officials, and the public of the potentially significant climate change-related consequences associated with land development in California, and in mitigating those impacts to some extent. However, as CEQA is only able to evaluate activities on a project-specific basis, its ability to address the statewide, national, and global climate change problem is correspondingly limited. Depending upon the ultimate results in currently pending litigation, statewide legislation may be needed to provide California's public agencies with the standards and tools needed for most effectively addressing climate change under CEQA.



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ENDNOTES

- 1 See California Climate Change Center, Our Changing Climate: Assessing the Risks to California (July 2006), http://www.energy.ca.gov/ 2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF [hereinafter Our Changing Climate]. The California Climate Change Center was established in 2003 by the California Energy Commission's Public Interest Energy Research (PIER) program. Pursuant to Executive Order #S-3-05, the California Environmental Protection Agency (CalEPA) is required to prepare biennial science reports on the potential impact of climate change on California's economy. The first of the biennial science reports was prepared by the California Climate Change Center, in collaboration with the California Air Resources Board, California Department of Water Resources, California Energy Commission, CalEPA, and Union of Concerned Scientists. It should be emphasized that this article is written by environmental lawyers, not scientists; its purpose is not to analyze whether the conclusions and predictions set forth in Our Changing Climate are correct, but, rather, whether CEQA is a viable tool to address the predicted effects.
- ² CAL. HEALTH & SAFETY CODE § 38501(a) (Deering's 2007).
- ³ CAL. HEALTH & SAFETY CODE §§ 38500 *et seq.*, 2006 Cal. Stat. ch. 488 (AB 32) (Deering's 2007).
- ⁴ CAL. HEALTH & SAFETY CODE §§ 38530, 38550 (Deering's 2007).
- 5 See, e.g., CAL. HEALTH & SAFETY CODE § 38562(d)(2) (Deering's 2007) ("For regulations pursuant to Part 5 (commencing with § 38570), the reduction is in addition to any greenhouse gas emission reduction that would otherwise occur.") See also CAL. HEALTH & SAFETY CODE §§ 38562(b)(4) (Deering's 2007) (in adopting emission limits and reduction measures by regulation to become effective by January 1, 2012, state air board shall ensure activities

under regulations complement and do not interfere with efforts to achieve federal and state air quality standards); CAL. HEALTH & SAFETY CODE § 38592(b) ("Nothing in this division shall relieve any person, entity, or public agency of compliance with any other applicable federal, state or local laws or regulations, including state air and water quality requirements, and other requirements for protecting public health or the environment."); CAL. HEALTH & SAFETY CODE § 38598(a),(b) (Deering's 2007) (nothing in Act shall limit state agencies' existing authority to adopt and implement greenhouse gas emission reduction measures, or relieve them of their obligations to comply with existing law or regulation). The Act acknowledges that "[n]ational and international actions are necessary to fully address the issue of global warming." (CAL. HEALTH & SAFETY CODE § 38501(d) (Deering's 2007))

- 6 See CAL. HEALTH & SAFETY CODE § 38501(d) (Deering's 2007) ("...action taken by California to reduce emissions of greenhouse gases will have far-reaching effects by encouraging other states, the federal government, and other countries to act.").
- 7 CAL. PUB. RES. CODE §§ 21000 et seq (Deering's 2007).
- ⁸ See infra notes 75 and 76, and accompanying text.
- ⁹ CAL. REAL ESTATE J., 1 (Mar. 19, 2007). The Attorney General has claimed that the Global Warming Solutions Act "inform[s] agencies' obligations [under CEQA]", and has pushed for solar power, electric vehicle charging facilities, tough urban limit lines, and concentration of development in population and employment centers which would reduce emissions from long commutes. *Id.* at 1, 8.
- See CAL. PUB. RES. CODE \$\$ 21000(a), 21001(a) (Deering's 2007).
- 11 CAL. PUB. RES. CODE §§ 21000, 21001 (Deering's 2007). See also Laurel Heights Improvement Ass'n v. Regents of the Univ. of Cal., 47 Cal. 3d 376, 393 (1988) (quoting Bozung v. Local Agency Formation Comm., 13 Cal. 3d 263, 283 (1975)) ("The purpose of CEQA is ... to compel government at all levels to make decisions with environmental consequences in mind.").
- 12 CAL. CODE REGS. tit. 14, §§ 15000 et seq (West 2000). While referred to by the Legislature as "guidelines" (see CAL. PUB. RES. CODE § 21083 (Deering's 2007)), the CEQA Guidelines must be adopted in the manner of regulations under the Administrative Procedure Act (CAL. GOV'T CODE §§ 11340, et seq (Deering's 2007)) and published in the California Code of Regulations. The Guidelines purport to be "binding on all public agencies in California." (CAL. CODE REGS., tit. 14, § 15000 (West 2000)) The California Supreme Court has not decided whether the Guidelines are regulatory mandates or merely interpretive aids, but they are entitled to great weight unless clearly unauthorized or erroneous.
- ¹³ CAL. CODE REGS. tit. 14, § 15002(a) (West 2000).
- 14 CAL. PUB. RES. CODE §§ 21000, 21001 (Deering's 2007).
- ¹⁵ CAL. CODE REGS. tit. 14, § 15003(a) (West 2000); see also Citizens of Goleta Valley v. Bd. of Supervisors, 52 Cal. 3d 553, 564 (1990); *Laurel Heights*, 47 Cal. 3d at 392.
- ¹⁶ CAL. CODE REGS. tit. 14, § 15362 (West 2000); see also CAL. PUB. RES. CODE, § 21061 (Deering's 2007); CAL.

CODE REGS. tit. 14., § 15121 (West 2000) ("An EIR is an informational document which will inform public agency decisionmakers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.").

- ¹⁷ San Franciscans Upholding the Downtown Plan v. City & County of San Francisco, 102 Cal. App. 4th 656, 688 (2002); CAL. PUB. RES. CODE §§ 21080(d), 21082.2(d) (Deering's 2007). In addition to the general rule requiring preparation of EIR's, CEQA also mandates that EIR's be prepared for projects involving the burning of municipal wastes, hazardous waste, or refuse-derived fuel, and issuance of permits for certain hazardous waste facilities. CAL. PUB. RES. CODE § 21151.1 (Deering's 2007); CAL. CODE REGS. tit. 14, § 15081.5 (West 2000).
- ¹⁸ CAL. CODE REGS. tit. 14, § 15123 (West 2000).
- ¹⁹ CAL. CODE REGS. tit. 14, § 15124 (West 2000).
- ²⁰ CAL. CODE REGS. tit. 14, § 15125 (West 2000).
- ²¹ CAL. CODE REGS. tit. 14, § 15126.2 (West 2000).
- ²² CAL. CODE REGS. tit. 14, § 15126.4 (West 2000).
- 23 CAL. CODE REGS. tit. 14, § 15126.6 (West 2000).
- 24 CAL. CODE REGS. tit. 14, § 15124 (West 2000).
- ²⁵ Our Changing Climate at 12.
- ²⁶ Kings County Farm Bureau v. City of Hanford, 221 Cal. App. 3d 692, 737-39 (1990).
- ²⁷ Id. at 738.
- ²⁸ Our Changing Climate at 1.
- ²⁹ CAL. CODE REGS. tit. 14, § 15125, *emphasis added* (West 2000).
- ³⁰ CAL. CODE REGS. tit. 14, § 15125(c) (West 2000).
- 31 CAL. CODE REGS. tit. 14, § 15125(a), emphasis added (West 2000).
- ³² See, e.g., County of Amador v. El Dorado Water Agency, 76 Cal. App. 4th 931, 953 (1999).
- ³³ Entl. Planning & Info. Council v. County of El Dorado, 131 Cal. App. 3d 350, 354 (1982); see also Christward Ministry v. Super. Ct., 184 Cal. App. 3d 180, 186 (1986) (comparison between proposed amendment and existing general plan insufficient; local agency must examine potential impact of amendment on the environment); County of Amador, 76 Cal. App. 4th at 955.
- ³⁴ County of El Dorado, 131 Cal. App. 3d at 354; see also Christward Ministry, 184 Cal. App. 3d at 186 (comparison between proposed amendment and existing general plan insufficient; local agency must examine potential impact of amendment on the environment); County of Amador, 76 Cal. App. 4th at 955.
- ³⁵ Eel River v. Sonoma County Water Agency, 108 Cal. App. 4th 859, 874 (2003).
- ³⁶ 1 Kostka & Zischke, PRACTICE UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEB 2005) § 12.26, at 599.
- ³⁷ CAL. CODE REGS. tit. 14, § 15126.2(a) (West 2000).
- 38 CAL, PUB. RES. CODE, § 21068 (Deering's 2007).
- ³⁹ CAL. PUB. RES. CODE, § 21060.5 (Deering's 2007).
- ⁴⁰ See, e.g, CAL. CODE REGS. tit. 14, § 15358 (West 2000).
- ⁴¹ CAL. CODE REGS. tit. 14, § 15064(b), (f) (West 2000).
- ⁴² Id.