

FEATURE ARTICLE

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE:
CEQA CATCHES UP WITH SCIENCE,
CELEBRITIES, AND PRODUCT PLACEMENT

By Wendy Lee Bogdan

A few years back, it seemed unimaginable that any resource area could displace water as the preferred target of the California Environmental Quality Act (Pub. Resources Code § 21000, *et seq.*) (CEQA). But litigation thrives on uncertainty, and the introduction of novel topics is the quickest and surest route to creating that uncertainty. Accordingly, within the last year, project opponents have noted the ever-increasing body of scientific and regulatory discussions regarding the impact of greenhouse gas emissions on climate change, and are driving public agencies and project proponents to examine whether, and how, those topics must be addressed for purposes of CEQA. This article identifies the potential circumstances in which CEQA may require discussion of greenhouse gas emissions and climate change as well as practical advice for crafting such discussions.

The Scientific, Regulatory, Cultural, and Marketplace Environment of Greenhouse Gas Emissions and Climate Change

Recent events indicate that greenhouse gas emissions and climate change have moved to the forefront of scientific, regulatory, and cultural discussions, as well as towards the center of the marketplace. High profile publications summarizing and distributing the scientific analysis of greenhouse gas emissions and climate change include the 2007 Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2007: The Physical Science Basis, Summary for Policy Makers (February 2007), California Environ-

mental Protection Agency's Climate Action Team Report (2006), and the California Department of Water Resources' Progress on Incorporating Climate Change into Management of California's Water Resources (2006).

Recent events affecting greenhouse gas emissions and climate change issues in California include the U.S. Supreme Court's April 2, 2007 decision in *Massachusetts, et al. v. U.S. Environmental Protection Agency*, No. 05-1120, 549 U.S. ____ (2007); California Assembly Bill 32; California Senate Bill 1368; California Senate Bill 107; California Senate Bill 1505; California Assembly Bill 1493; *Central Valley Chrysler-Jeep Inc. v. Witherspoon* (U.S. District Ct., Eastern Dist. CA 2007); and Governor Arnold Schwarzenegger's 2005 Executive Order S-3-05.

Thumbing through the magazines at your dentist's office you will discover that Julia Roberts and Brad Pitt each drive a Toyota Prius, thereby demonstrating: (1) if due to nothing else but the magic of product placement, greenhouse gas emissions/climate change has made it into popular culture; and (2) there is a growing sector of the economy banking on demand for "green" products and services.

In this context, it was inevitable that greenhouse gas emissions and climate change would begin to appear in CEQA caselaw. As discussed below, there are three scenarios for evaluating greenhouse gas emissions and climate change in the context of CEQA. This article takes them each in turn, focusing on practical approaches for CEQA compliance.

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Incremental Contribution to Greenhouse Gas Emissions and Climate Change

The first circumstance in which CEQA may require analysis of gas emissions and climate change is *where a project may incrementally contribute to cumulative greenhouse gas emissions and climate change*. The Center for Biological Diversity (CBD), the California Attorney General, and others have argued that CEQA requires such an approach.

For example, in August 2006 CBD challenged a decision by the City of Banning to approve the SunCal Companies' "Black Bench" development, alleging, among other things, that the city violated CEQA. The proposed development at issue would include 1,400 new houses on 1,488 acres along the city's northern boundary at the base of the San Bernardino Mountains. The development would also include a new school site, 81 acres of parks and trails, 869 acres of open space, and a new roadway system is slated to provide access and circulation.

CBD's petition alleges that Banning failed to comply with CEQA by failing to disclose and evaluate the project's greenhouse gas emissions and the environmental impact of those emissions.

The City violated CEQA because it failed to give necessary attention to the project's effects on wildlife, threatened habitat, air quality, and the extension of sprawl-inducing services to a rural area...and the City utterly ignored the project's greenhouse gas emissions.

(Black Bench Project Challenged, *Press Enterprise*, December 2, 2006 quoting CBD staff attorney John Buse.)

For example, CBD alleges that the combination of daily automobile trips (15,164), the use of energy for cooling, heating and lighting during the project's lifetime and the construction and operation phases of the project will result in "cumulatively considerable emissions of carbon dioxide." The petition further alleges that carbon dioxide is the principal "greenhouse gas" contributing to global warming. Allegations of harm include dire "consequences for southern California, the United States, and the world," alleging that warming "will result in additional sea-level rise that will inundate coastal areas, changes in precipitation patterns, and public health impacts." (Petition at

paragraph 19, p. 5.) The City of Banning and Black Bench Development LLC filed their Answers on April 13, 2007.

CEQA provides that its procedures are intended to assist public agencies in identifying both the significant environmental effects of a proposed project and the feasible alternatives or mitigation measures that will avoid or substantially lessen such significant effects. Applying this intent in the context of greenhouse gas emissions and climate change raises the following three issues: (1) whether the impact is caused by the project; (2) whether the impact is speculative; and (3) whether the lead agency's basis for determining the "significance" of the cumulative impact is legally defensible.

Evaluating Whether Greenhouse Gas Emissions/Climate Change Impacts Are Caused by a Project

The first step in determining whether, or how, a CEQA lead agency must evaluate a project's impact on greenhouse gas emissions and climate change is *identifying which such impacts are caused by the project*. A lead agency must consider the project's "direct" and "indirect" impacts. An indirect impact is a physical change in the environment which is not immediately related to the project, but which is *caused* indirectly by the project. By way of example the CEQA Guidelines state that the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity, which population growth may in turn lead to an increase in air pollution, which would constitute an indirect impact of the treatment facility.

There is no bright line rule for determining when an environmental impacts' causal link to the project is too attenuated to attribute the impact to the project. Examples of indirect impacts include: (1) changes in the location of development as a result of Local Agency Formation Commission sphere-of-influence guidelines; (2) possible groundwater degradation resulting from the failure of private sewage disposal systems that would be allowed under a proposed ordinance; (3) adverse impacts from later residential development that might be attracted to area by development of golf course; (4) the need for alternative disposal, increased hauling, and possible loss of

farmland as a result of a proposed ordinance restricting disposal of sewage sludge.

Not only must lead agencies examine how attenuated the causal link is between a proposed project and increased greenhouse gas emissions/climate change, it is essential that lead agencies critically examine *whether there is any causal impact at all*. Critical examination of whether a particular project causes increased greenhouse gas emissions and climate change is particularly important given that population, rather than any particular project, is the primary cause of these impacts. For example, a county's approval of a housing development does not cause an increase in greenhouse gas emissions and/or climate change, if, but for the county's approval of that development, *its future residents would have simply moved into a comparable new housing development in another location*. Thus, careful analysis of a project's causal link to alleged greenhouse gas emissions and climate change may provide an important tool for lead agencies and project proponents.

This issue of causation is closely related to defining the "no project" alternative. If the greenhouse gas emissions will occur regardless of the project, those emissions should be included within the "no project" alternative. In such circumstances, the greenhouse gas emission/climate change impact will be the same for the no project alternative and the proposed project.

In fact, some projects may result in a reduction of greenhouse gas emissions/climate change impacts as compared to the existing baseline or no project alternative. This would occur where, for example, a county approves a permit for an aggregate mine that is closer to construction sites than are the mines from which those construction sites would otherwise obtain their aggregate supply.

The evolution of California's regulatory environment will also affect what impacts a court may be willing to attribute to a project. For example, CARB's implementation of AB 32 may allocate a certain amount of greenhouse gas emissions to different activities. However, the methodology that CARB will use to select which emissions are attributable to a particular project remains unknown. Because CARB's regulatory scheme will likely provide the foundation for many lead agencies' CEQA analysis of greenhouse gas emissions and climate change, CEQA lead agencies may choose to adopt CARB's defini-

tion of "indirect impacts" for purposes of evaluating a project's impacts on greenhouse gas emissions and climate change.

Evaluating Whether the Particular Project's Incremental Impact on Climate Change Is Speculative

A second step in determining whether, or how, a CEQA lead agency must evaluate a project's impact on greenhouse gas emissions and climate change is identifying which impacts are speculative. 14 C.C.R. § 15064(d)(3) provides that in evaluating the significance of a project's environmental effect, the lead agency must only consider an indirect physical change if that change is a reasonably foreseeable impact which may be caused by the project. A change, which is speculative or unlikely to occur is not reasonably foreseeable. 14 C.C.R. § 15064(f)(5) in turn provides that the decision as to whether a project may have one or more significant effects shall be based on substantial evidence in the record, and that speculation shall not constitute substantial evidence.

In the case of greenhouse gas emissions and climate change, there is little scientific evidence as to the impact of any particular project's greenhouse gas emissions on climate change. Once a lead agency has settled on which emissions to include within the definition of a "project's" greenhouse gas emissions, there are tools available to quantify those emissions (*e.g.*, URBEMIS Environmental Management Software [www.urbemis.com]). Scientific opinions are evolving regarding the impact of global and even statewide greenhouse gas emissions on climate change. At present, however, the cause and effect relationships are not well defined enough to allow experts to provide evidence as to how a particular project's greenhouse gas emissions will affect climate change.

As discussed below, lead agencies' obligation to disclose a project's impacts on climate change will grow along with the sophistication of the science. However, lead agencies may currently be able to conclude, after disclosure, that a determination regarding a project's impact on climate change is speculative.

Relying primarily on the absence of evidence regarding site specific climate change impacts, the court in *Natural Resources Defense Council v. Reclamation Board* (Sac. Superior Court, Case No. 06CS01228, rejected as speculative petitioners' claims the lead agency failed to adequately address climate change. In

August 2006 the Natural Resources Defense Council (NRDC), the California Sportfishing Protection Alliance, Deltakeeper, and the Natural Heritage Institute challenged a decision by California's Reclamation Board to approve fill and encroachment permits for a development in California's Sacramento San Joaquin Bay Delta (Delta). In its CEQA-based lawsuit, petitioners alleged that data made available after certification of the project's EIR indicated that the impacts of climate change in the Delta "will change the impacts of the project." Because the Reclamation Board approved permits for the developer without considering these changed circumstances, alleges the complaint, the Reclamation Board has violated CEQA.

The court rejected the petitioners' arguments on the basis that there was no specific new information regarding the impact of climate change at the project site that could lead to a conclusion that project impacts would be significantly increased as the result of climate change. However, the court qualified its holding by stating that:

[a]s the projected effects of climate change become clearer and can be related to specific sites, there is little doubt that those effects will have to be factored into the analysis of many projects under CEQA.

In addition, because climate change analysis necessarily calls for a geographically broader (*i.e.* the earth) analysis of air impacts, lead agencies may be pressed to articulate that speculation is the basis for omitting analysis that has historically been omitted from analysis without explanation. For example, when drafting an EIR for a packaging plant, lead agencies do not look at the impacts of truck traffic over the entire distance from the packaging plant to specific retail stores throughout California. Rather, in most cases, lead agencies look at the impacts of truck traffic from the proposed packaging plant, through the local streets on to the highway, with the often unstated understanding that traffic patterns beyond initial entry on to the highway are speculative. The global perspective encouraged by climate change analysis draws into high relief such geographic circumscription of impact analyses and may necessitate more explanation as to why a particular impact has become too speculative to analyze for purposes of CEQA.

Selecting a Legally Defensible Standard of Significance

Despite all the challenges described above, perhaps the most vexing issue facing lead agencies is the identification of a legally defensible standard for identifying the significance of a project's impact on greenhouse gas emissions and climate change. As a quasi-legislative decision, separation of powers requires that a reviewing court provide significant deference to the lead agency's selection of significance standards. Thus, a lead agency has discretion to formulate standards of significance for use in an EIR as long as a reasonable basis exists for using those standards. This requires that the agency make a policy judgment about where the line should be drawn for distinguishing adverse impacts deemed substantial from those that are not deemed substantial. The judgment regarding significance must be based on scientific information and other evidence to the extent possible. Such evidence is often provided by experts preparing the EIR based on their assessment of the technical evidence.

The challenge of identifying a standard for significance is exacerbated by the state of CEQA law in regard to cumulative impacts where the existing baseline already exceeds a regulatory standard. The courts long ago rejected the "ratio" theory of cumulative impacts whereby a lead agency could find that contribution was not significant if it was *de minimis*. The courts have also rejected the "one molecule" theory, whereby the addition of any adverse environmental impact is significant where the baseline exceeds the regulatory limit. In *Communities for a Better Environment v. California Resources Agency*, 103 Cal. App.4th 98 (2002), the court found that lead agencies must consider both whether: (1) the cumulative impact is significant; and (2) the proposed project's incremental effects are cumulatively considerable. Although this two-part test provides lead agencies little guidance, the test also underscores that the determination regarding a *standard* for significance is a policy decision that requires the lead agency to exercise its judgment and discretion.

In short, lead agencies have considerable legal discretion to provide standards for determining whether a project's impacts go greenhouse gas emissions and climate change are significant. In fact, from a legal perspective the current absence of guidance from other regulatory agencies reinforces a lead

agency's discretion to set such standards. Legally, a lead agency's significance standard must be upheld if it is supported by scientific information. However, given the current focus on greenhouse gas emissions and climate change, and its political currency, many lead agencies may not have the political resolve to set such standards.

Rather than place themselves in the front of a high profile issue, many lead agencies will likely wait until some other agency, such as CARB, provides guidelines that can be adapted by lead agencies as standards for determining significance. CEQA precludes lead agencies from avoiding all political responsibility in that CEQA requires lead agencies to at least consider whether another agency's standards are appropriate for determining a project's impacts. Nonetheless, CARB's allocations of greenhouse gas emissions reductions, and any further guidelines from the individual air quality management districts, are the best prospect for providing assistance in setting significance standards. However, although AB 32 sets forth a schedule for CARB's implementation of regulations, it is not clear whether CARB will be able to meet those deadlines.

Project Impacts on a Resource that May Be Affected by Greenhouse Gas Emissions/Climate Change

The second circumstance in which CEQA could require analysis of greenhouse gas emissions/climate change is *where a project may impact a resource that is also affected by climate change*. An example of such a circumstance is a proposal to change the operation of a dam, where that change will adversely affect downstream fish that are anticipated to be adversely affected by climate change. In this example, the project itself may have no impact on greenhouse gas emissions or climate change, but the CEQA analysis may nonetheless require significant discussion of such impacts in order to understand the cumulative impact of the project on the downstream fish.

The arguments alleged by petitioners in *Natural Resources Defense Council v. Reclamation Board* above, presented such a scenario. In that case, petitioners argued that the construction of the project would increase flood risks downstream, which downstream flood risks would be further increased as a result of global warming. As noted above, the court did not reject this argument, but instead pointed to the lack of

substantial evidence in that case regarding the alleged increase in site specific downstream flooding caused by global warming.

Impacts of Climate Change on a Project

The third circumstance in which CEQA could require analysis of greenhouse gas emissions/climate change is where *climate change may affect a proposed project*. An example of this circumstance is where climate change could affect the risk of flooding on the site of a proposed development project. As discussed below, it is not clear that such an impact is cognizable under CEQA.

The CEQA statute merely requires lead agencies to evaluate potentially significant impacts caused by a project. The statute does not require lead agencies to consider the impact of the environment on a project. Caselaw including *Baird v. County of Contra Costa*, 32 Cal. App. 4th 1464, 468 (1995) has affirmed this limitation on lead agencies' obligations under CEQA.

Nonetheless, the CEQA Guidelines state that an EIR must consider health and safety problems caused by the physical changes of a project. This requirement could be interpreted to require an EIR to consider the flooding problems caused by placing development in a location where there is substantial evidence that location will be subject to increased flooding. However, such an interpretation of 14 C.C.R. § 15126.2 appears to exceed the Resource Agency's authority under CEQA, particularly as interpreted in *Baird*.

Practice Tips for Lead Agencies and Project Proponents

Although lead agencies' obligations under CEQA in regard to greenhouse gas emissions and climate change are still unclear until further guidance is developed by the courts and/or regulatory agencies, lead agencies and project proponents can take several steps to minimize their risk under CEQA.

Prior to approving or carrying out a project, include a discussion of the proposed project's impacts on greenhouse gas emissions and climate change

- Summarize the scientific data that is available and the limits of that data.
- Provide a calculation of the proposed project's greenhouse gas emissions. Unless contrary guidance is provided by an expert regulatory agency,

when selecting which emission sources qualify as sources of direct, indirect, and cumulative impacts, utilize the same approach as used for other impacts on air quality. However, qualify this discussion with a critical examination of the proposed project's causal effect on those greenhouse gas emissions.

- Cite to scientific data and expert testimony indicating that any particular project's contribution to climate change is small. However, do not rely on a *de minimis* argument to conclude that cumulative impacts are less than significant.

- Include a discussion of all feasible mitigation measures to reduce greenhouse gas emissions.

- Make an affirmative decision as to how the lead agency will handle the significance determination:
 - a). Whether the lead agency is willing to set forth a standard by which to determine whether a project's impact on greenhouse gas emissions and/or climate change is significant. If the lead agency chooses to so, clearly articulate the standard as a

policy decision supported by expert evidence.

- b). Whether the lead agency will determine, after disclosure, that the impact is too speculative to determine whether it is significant.

- c). Whether the lead agency will determine, after disclosure, that the impact is potentially significant and that there are no feasible mitigation measures available to reduce the impact to a less than significant level.

Conclusion and Implications

Very little in life remains static. What once was within the exclusive realm of the environmental law practitioner—air quality and the Clean Air Act—now may take the form of air quality/greenhouse gas emissions and their relationship to CEQA. For the land use practitioner, a working understanding of greenhouse gas emissions and climate change will soon, if not already, be essential—right along with an understanding of water resources and endangered species.

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