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Analyzing Climate Change Under CEQA in a Climate of Uncertainty

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Introduction

California has long been recognized as a leader in environmental protection. In 1970, the legislature enacted the California Environmental Protection Act (CEQA) (Pub Res C §§21000–21178), which mandates that governmental agencies at all levels identify potentially significant environmental effects, and implement feasible mitigation measures or alternatives, before approving a project. Pub Res C §21002. CEQA requires that public agencies prepare a comprehensive environmental impact report (EIR) to analyze projects that may cause significant environmental effects. California courts have described the EIR's role "as an environmental alarm bell whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *County of Inyo v Yorty* (1973) 32 CA3d 795, 810, 108 CR 377.

Yet, in the 37 years since its enactment, CEQA has not served its function as the "environmental alarm bell" on the issue of climate change. California's awareness and growing concern about this issue, which many describe as the single most important environmental issue of this and future generations, has developed outside the context of CEQA, largely in response to private action and other legislative initiatives spanning approximately 20 years. Consequently, there is no California appellate case law applying CEQA's requirements to the issue of climate change. But in the words of Bob Dylan, "The times they are a-changin'."

Since the California legislature's enactment in September 2006 of AB 32, the California Global Warming Solutions Act of 2006 (Health & S C §§38500–38599), at least two CEQA lawsuits have been filed challenging the respective agency's alleged failure to consider a project's greenhouse gas (GHG) emissions and effects on climate change. Last December, the Center for Biological Diversity filed a challenge to the City of Banning's approval of a 1500-home development. On April 13, 2007, California Attorney General (AG) Jerry Brown, on behalf of the state, filed a lawsuit against San Bernardino County's update to its General Plan. (As we go to press, the Attorney General and San Bernardino County have settled the suit, with the county agreeing to incorporate a greenhouse gas emissions reduction plan into its General Plan, including a specific reduction target and mitigation measures. See http://www.sbcounty.gov/pressreleases/docs/1877AGlawsuitsettlementrelease8–21–07.pdf.)

The AG has also submitted CEQA comment letters challenging several projects throughout the state based on the project EIR's alleged failure to analyze climate change impacts, including:

- The San Diego General Plan;
- The Yuba Highlands Project;
- The Kern County Regional Transportation Plan;
- The Merced County Regional Transportation Plan;
- The San Joaquin County Regional Transportation Plan; and
- The ConocoPhillips Rodeo Refinery Expansion Project.

The sudden proliferation of CEQA challenges on the issue of climate change recently prompted the California Chamber of Commerce, along with several prominent California companies and labor unions, to

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jointly submit a letter to Governor Schwarzenegger, Senate President pro tem Don Perata, and Speaker Fabian Nunez requesting legislation clarifying that "CEQA is not the appropriate vehicle for addressing climate change concerns." Their June 21, 2007, letter warns: "The potential for harm if these [CEQA] challenges are allowed to continue is staggering." (The letter can be found at www.pcl.org/newsroom/CEQAClimateChangeLetter.pdf.) The industry group's letter sparked a flurry of letters in response to the Governor from environmental groups asserting that CEQA is a vitally important legal instrument to accomplish the state's goal of reducing GHG emissions.

Given California's political and actual climate today, there is a growing consensus among CEQA practitioners that in at least some, if not most, circumstances, even in the absence of an express statutory requirement to do so, governmental agencies will expand the traditional scope of their environmental review under CEQA to consider a project's GHG emissions and potential climate change impacts.

This article discusses the regulatory background leading to California's focus on the issue of climate change. It then discusses some of the unique challenges presented by environmental review under CEQA of a project's potential effects on climate change. Finally, it discusses alternative approaches to such CEQA review.

California's Actions to Address Climate Change – Warming Up to the Threat of Warming

In 1988, the California legislature enacted AB 4420, which, among other things, directed the California Energy Commission (CEC), in consultation with California's Air Resources Board (CARB) and other agencies, to study the implications of global warming on California's environment, economy, and water supply.

Executive Order S-3–05 and the Climate Action Team

In June 2005, the Governor signed Executive Order S-3–05, which called for a reduction in GHG emissions to 1990 levels by 2020 and an 80-percent reduction in GHG emissions by 2050. (Executive Order S-3–05 can be found at http://www.climatechange.ca.gov/climate_action_team/index.html.) The Executive Order also directed the Secretary of the California Environmental Protection Agency (Cal/EPA) to lead an effort to evaluate the impacts of climate change on California and to recommend measures in response. The Secretary of Cal/EPA thereafter created the Climate Action Team (CAT). The CAT includes representatives from the CARB, Business, Transportation & Housing Agency, Department of Food & Agriculture, CEC, California Integrated Waste Management Board, Department of Water Resources, and the Public Utilities Commission.

The CAT released its 107-page report to the Governor in March 2006. (The report can be found on the CAT website at http://www.climatechange.ca.gov/climate_action_team/index.html.) The CAT report states that "during the 20th century, we have observed a rapid change in the climate and climate change pollutants that is attributable to human activities." Report at 6. The report continues that "[t]he climate change we are seeing today ... differs from previous climate change in both its rate and its magnitude." Report at 6–7. The report states further that "[c]ontinued climate change would have widespread impacts on California's economy, ecosystems, and the health of its citizens." Report at 37.

Finally, the report identifies several GHG emission reduction strategies, most of which are not applicable to land use development. The recommendations relating to land use include (Report at 39–65):

- Planting trees in urban and suburban areas;
- Implementation of energy efficient water and wastewater operations;
- Implementation of building energy efficiency standards;
- Implementation of energy efficient cement manufacturing techniques;
- Implementation of strategies that integrate transportation and land-use decisions (e.g., encouraging jobs/housing proximity, transit-oriented development,

and high-density residential/commercial development along transit corridors);
• Implementation of Green Building Initiatives comparable to the Governor's Green Building Executive Order, S-20–04, which sets forth specific actions state agencies are to take with state-owned and leased buildings; and
• Increased use of solar and other noncarbon sources of energy.

California's Global Warming Solutions Act of 2006

The CAT's findings provided additional impetus for the legislature to enact landmark legislation aimed at addressing global warming. In September 2006, Governor Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006, which requires CARB, the state agency charged with regulating statewide air quality, to determine by January 1, 2008, what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. Health & S C §38561.

Assembly Bill 32 includes a declaration by the legislature that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Health & S C §38501(a). Section 38501(a) further states that

> the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human related problems.

Although the CARB has primary responsibility for reducing GHG emissions under AB 32, the Act further directs that "[n]othing in this division shall relieve any state entity of its legal obligations to comply with existing law or regulation." Health & S C §38598(b).

The AG and various environmental organizations have asserted that AB 32 implicitly has imposed a mandatory duty on governmental agencies to analyze under CEQA a project's potential effects on climate change. This viewpoint gained momentum on April 27, 2007, with the Association of Environmental Professionals' (AEP) publication of its Draft White Paper on Global Climate Change (found at http://www.califaep.org/climate%20change/default.html). The AEP is a statewide group with over 1600 members whose primary focus is the preparation of CEQA compliance documents. AEP's Draft White Paper states (at 8):

> When the legislative findings about the threats to the environment and the absence of relief from other laws are considered together, AB 32 creates compelling statutory basis for addressing significant adverse effects of GCC [Global Climate Change] in CEQA compliance.

Advocates of the AG's viewpoint contend further that CEQA is a critically important legal instrument for achieving the GHG reductions mandated by AB 32 given the severity of existing GHG levels and current trends. According to the CEC's December 2006 report on the "Inventory of Greenhouse Gas Emissions and Sinks" (found at http://www.energy.ca.gov/publications/displayOneReport.php?pubNum=CEC-600–2006–013-SF), California is the second largest contributor of GHG emissions in the United States (behind Texas), and the 16th largest in the world. CEC Report at 17. The major source of GHG emissions in California is transportation, contributing 41 percent, followed by electricity, contributing 22 percent. CEC Report at 8. The CEC report concurs with the CAT that urgent action is needed to reverse the trend of increasing GHG emissions. CEC's report states (at 8):

> California's GHG emissions are large and growing as a result of population and economic growth and other factors. From 1990 to 2004 total gross GHG emissions rose 14.3 percent; they are expected to continue to increase in the future under "business-as-usual" unless California implements programs to reduce emissions.

On an optimistic note, however, the CEC report states that while California's economy grew 83 percent between 1990 and 2004, its GHG emissions

increased more slowly, at 12 percent, thus demonstrating "the potential for uncoupling economic trends from GHG emissions trends." CEC Report at i. The state's ongoing ability to uncouple economic growth from GHG emissions, according to the CEC, is largely dependent on its commitment to implementing energy efficiency, renewable energy, and other GHG emission reduction measures. CEC Report at i. Advocates of the AG's viewpoint contend that CEQA is perhaps the best mechanism to ensure that GHG emission reduction measures are incorporated into future projects.

The CEC's warning against proceeding with "business as usual" is echoed in the AG's recent CEQA comment letters. As an example, the AG's June 11, 2007, letter to the City of San Diego regarding its proposed general plan states (at 7): "The impacts of global warming are potentially catastrophic and we cannot proceed with 'business as usual' even though some of the required changes may encounter public opposition." (The letter can be found at http://www.sandiego.gov/ cityattorney/reports/pdf/sagl070706.pdf.)

The growing consensus favoring CEQA analysis of climate change impacts, however, has far outpaced any consensus on *how* to conduct this analysis during the interim period before the CARB provides regulatory guidance.

From "Business-as-Usual" to "Ad-Hoc" Rules

GHG emissions into the atmosphere are not by themselves an adverse environmental effect. The increased concentrations of GHG emissions, resulting in global climate change and its associated consequences, produce adverse environmental impacts. Although it is possible to generally estimate a project's incremental contribution of GHG emissions into the atmosphere, there is no recognized methodology for determining how an individual project's relatively small incremental contribution might translate into physical effects on the environment—particularly given the global nature of the problem.

Consequently, CEQA analysis of a project's effect on global climate change involves unique challenges. Among other issues, there is ongoing debate among CEQA practitioners regarding how best to determine:

- A project's environmental effects, if any, on global climate change;
- The threshold for finding that a project's incremental climate change effects rise to the level of a "cumulatively considerable" impact; and
- If the project's climate change effects are cumulatively considerable, what feasible alternatives or mitigation measures, if any, can "substantially lessen" the project's effects.

Determining the Project's Effects on the Physical Environment

Among the first steps in the environmental analysis under CEQA is a determination of what physical changes to the environment, if any, will be caused by the project. *Baird v County of Contra Costa* (1995) 32 CA4th 1464, 38 CR2d 93. Lead agencies are required under CEQA to consider direct and indirect physical changes in the environment that may be caused by the project. 14 Cal Code Regs §15064(d). An indirect physical change is to be considered only if that change is a reasonably foreseeable impact; a change that is speculative or unlikely to occur is not reasonably foreseeable. 14 Cal Code Regs §15064(d)(3).

There is no established methodology for determining the impacts of a land use plan or an individual project on global climate change. The 2005 report prepared by the National Research Council, a branch of the National Academy of Science, entitled "Radiative Forcing of Climate Change: Expanding the Concept and Addressing Uncertainties," concluded that "the mechanisms involved in land-atmosphere interactions are not well understood, let alone represented in climate models." The determination of a project's effect on the physical environment resulting from climate change is further complicated by the fact that GHG emissions, unlike other air quality impacts that are linked to a localized area or region, are by definition a global issue, requiring analysis on a global scale.

The analysis of a project's effect on the environment begins with an inventory of each potential source of

GHG emissions fairly attributed to the project. CEQA defines the term "project" broadly to encompass the "whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." 14 Cal Code Regs §15378(a). Courts have held that under this broad definition, the environmental analysis should encompass not only airborne emissions associated with project construction and operations, but also mobile emissions related to transportation to and from the project. *Kings County Farm Bureau v City of Hanford* (1990) 221 CA3d 692, 716, 270 CR 650. The latter source is a subject of some controversy. In many cases, a project will not cause "new" vehicle GHG emissions sources from a global perspective, but rather merely causes the movement of existing vehicle emission sources from one location to another.

In *Natural Resources Defense Council v Reclamation Bd.* (Sacramento Super Ct, Apr. 27, 2007, No. 06CS01228), the court rejected petitioner's claim that recent global warming legislation constituted new information triggering the need for "supplemental" environmental review under CEQA, in part because the causal link between the specific project and climate change was not established. The court stated:

> As 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.

The court's holding suggests that a lead agency's obligation to disclose a project's incremental impact on climate change may grow as science advances. See Bogdan, *Greenhouse Gas Emissions and Climate Change: CEQA Catches Up With Science, Celebrities, and Product Placement*, 16 California Land Use L & Policy Rep 245 (June 2007). During this interim period, lead agencies may conclude that a determination regarding the project's impact on climate change is too speculative. Bogdan, *supra*. Title 14 Cal Code Regs §15145 authorizes such a conclusion, stating that "[i]f, after thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." Under CEQA's "rule of reason," an EIR is required to evaluate impacts to the extent it is "reasonably feasible" to do so. 14 Cal Code Regs §15151; *San Francisco Ecology Ctr. v City & County of San Francisco* (1975) 48 CA3d 584, 122 CR 100. While CEQA requires lead agencies to make a good faith effort to disclose what they reasonably can, it "does not demand what is not realistically possible." *Residents Ad Hoc Stadium Comm. v Board of Trustees* (1979) 89 CA3d 274, 286, 152 CR 585.

Determining Thresholds of Significance

CEQA compels public agencies to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. Pub Res C §21002; *Sierra Club v State Bd. of Forestry* (1994) 7 C4th 1215, 1233, 32 CR2d 19. The determination of what constitutes a "significant" impact is important under CEQA because mitigation measures are not required for effects not found to be significant. 14 Cal Code Regs §15126.4(a)(3).

The AG has argued that anticipated GHG emissions of proposed projects will cause significant environmental effects under a "cumulative impacts" analysis. A cumulative impact consists of an impact created as a result of the combination of the project evaluated together with other projects causing related impacts. 14 Cal Code Regs §§15130(a)(1), 15355. Cumulative impact analysis involves a two-step process. The lead agency first determines whether the combined effects from both the proposed project and other projects would be cumulatively significant. If the answer is yes, the second question is whether "the proposed project's incremental effects are cumulatively considerable." *Communities for a Better Env't v California Resources Agency* (2002) 103 CA4th 98, 120, 126 CR2d 441; Thomas, Moose, Manley, *Guide to CEQA 468* (11th ed Solano Press 2006).

The AG has asserted that because the state is committed by AB 32 to a 25-percent decrease in GHG emissions, any project that produces increases in GHG emissions could be an obstacle to complying with AB 32 and

thus should be considered a significant cumulative impact. The AG argues further that this approach is consistent with 14 Cal Code Regs §15387, App G (Environmental Checklist Form), which lists as a factor (in determining whether an air quality impact is significant) consideration of whether the project conflicts with or obstructs implementation of applicable air quality plans. The logical extension of this argument, however, is that virtually all projects will require preparation of an EIR rather than a negative declaration, as the slightest incremental contribution of GHG emissions may cause significant environmental impacts.

There is minimal guidance under CEQA regarding what constitutes a cumulatively considerable impact. Courts have held that the addition of "one molecule" is not cumulatively considerable. *Communities for a Better Env't, supra*. On the other hand, "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." *Communities for a Better Env't, supra*. The determination of whether an incremental increase in airborne contaminants greater than one molecule constitutes a cumulatively considerable impact ultimately must be made on a case-by-case basis.

There are currently no published thresholds for significance for measuring a project's impact on climate change. CARB is expected to provide regulatory guidance regarding standards of significance in January 2008. During this interim period, agencies may conclude that any determination of significance would be speculative "and terminate discussion of the impact." 14 Cal Code Regs §15145; *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1993) 6 C4th 1112, 1137, 26 CR2d 231 (upholding EIR's conclusion that potential cumulative impacts of toxic air emissions are too speculative for evaluation).

The AG rejects such determinations by lead agencies. As an example, the AG's comment letter to the Contra Costa County Planning Commission regarding the ConocoPhillips Rodeo Refinery Expansion Project states:

> By declining to determine that GHG emissions from the projects could have a cumulatively considerable impact on global warming, the County has attempted to avoid CEQA's requirement to adopt all feasible alternatives and mitigation measures to reduce the project's global warming impacts. This substantially undercuts "the fundamental purpose of CEQA which is to ensure that environmental considerations play a significant role in governmental decision making."

The AG has asserted that even if no regulatory agency has established a threshold by which to measure the significance of a single project's GHG emissions, lead agencies are obligated under CEQA to make their own determinations of significance. 14 Cal Code Regs §15064.7(a). ("Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.")

Critics of the AG's position counter that while agencies have considerable discretion in determining thresholds of significance, their determination should be based, to the extent possible, on scientific and factual data, which are lacking prior to CARB's issuance of regulatory standards. See 14 Cal Code Regs §15064(b). Additionally, an agency's determinations must be supported by "substantial evidence." Pub Res C §21080(c)(1). CEQA defines "substantial evidence" as facts, reasonable assumptions predicated on facts, and expert opinion supported by facts. 14 Cal Code Regs §15384(b).

The AG's critics additionally warn that, absent reliance on regulatory guidance from the CARB through the AB 32 process, rules regarding how climate change impacts are to be evaluated will likely be developed on an ad hoc basis, increasing the risk that mitigation resources will be misallocated.

Determining Feasible Mitigation Measures

CEQA requires agencies to adopt feasible mitigation measures in order to substantially lessen or avoid the otherwise significant adverse environmental effects of proposed projects. Pub Res C §21002. Mitigation measures should be capable of avoiding or substantially less-

ening the project's environmental impacts. 14 Cal Code Regs §15370. Additionally, to survive constitutional scrutiny, mitigation measures must be "roughly proportional" to the impacts of the project. 14 Cal Code Regs §15126.4(a)(4)(B).

Project modification is not required when it is infeasible or the responsibility for mitigation lies with some other agency. 14 Cal Code Regs §15091(a), (b). "'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." Pub Res C §21061.1. In cases in which significant impacts are not at least "substantially lessened," the agency may nevertheless approve the project if it first adopts a "statement of overriding considerations" setting forth the specific reasons why the agency found that the project's benefits rendered acceptable its unavoidable adverse environmental effects. 14 Cal Code Regs §§15043(b), 15093.

The AG has asserted that lead agencies must make project approvals contingent on the implementation and enforcement of mandatory mitigation measures to reduce GHG emissions, which, depending on the nature of the project (*i.e.*, plan-level or site-specific), may include, but are not limited to, the following:

Transportation

• Coordinate controlled intersections so that traffic passes more efficiently through congested areas. Where signals are installed, require the use of Light Emitting Diode (LED) traffic lights.
• Set specific limits on idling time for commercial vehicles, including delivery and construction vehicles.
• Require construction vehicles to use retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters verified by the CARB.
• Promote ride sharing programs, *e.g.*, by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.
• Create car-sharing programs. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations accessible by public transportation.
• Require clean alternative fuels and electric vehicles.
• Develop the necessary infrastructure to encourage the use of alternative fuel vehicles, e.g., electric vehicle charging facilities and conveniently located alternative fueling stations.
• Increase the cost of driving and parking private vehicles by imposing tolls, parking fees, and residential parking permit limits.
• Develop transportation policies that give funding preference to public transit.
• Design a regional transportation center where public transportation of various modes intersect.
• Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations.
• Assess transportation impact fees on new development in order to facilitate and increase public transit service.
• Provide shuttle service to public transit.
• Offer public transit incentives.
• Incorporate bicycle lanes into street systems in regional transportation plans, new subdivisions, and large developments.
• Create bicycle lanes and walking paths directed to the location of schools and other logical points of destination and provide adequate bicycle parking.
• Require commercial projects to include facilities on-site to encourage employees to bicycle or walk to work.
• Provide public education and publicity about public transportation services.

Energy Efficiency and Renewable Energy

• Require energy efficient design for buildings. This may include strengthening local building codes for new construction and renovation to require a higher level of energy efficiency.
• Adopt a "Green Building Program" to promote green building standards.
• Fund and schedule energy efficiency "tune-ups" of existing buildings by checking, repairing, and readjusting heating, ventilation, air conditioning, lighting, hot water equipment, insulation, and weatherization. (Facilitating or funding the improvement of energy efficiency in existing buildings could offset in part the

global warming impacts of new development.)
• Provide individualized energy management services for large energy users.
• Require the use of energy efficient appliances and office equipment.
• Fund incentives and technical assistance for lighting efficiency.
• Require that projects use efficient lighting. (Fluorescent lighting uses approximately 75 percent less energy than incandescent lighting to deliver the same amount of light.)
• Require measures that reduce the amount of water sent to the sewer system. (Implementing this measure means less water has to be treated and pumped to the end user, thereby saving energy.)
• Incorporate on-site renewable energy production (through, e.g., participation in the California Energy Commission's New Solar Homes Partnership). Require project proponents to install solar panels, water reuse systems, and/or other systems to capture energy sources that would otherwise be wasted.
• Streamline permitting and provide public information to facilitate accelerated construction of solar and wind power.
• Fund incentives to encourage the use of energy efficient equipment and vehicles.
• Provide public education and publicity about energy efficiency programs and incentives.

Land Use Measures

• Encourage mixed-use and high-density development to reduce vehicle trips, promote alternatives to vehicle travel, and promote efficient delivery of services and goods. (A city or county could promote "smart" development by reducing developer fees or granting property tax credits for qualifying projects.)
• Discourage "leapfrog" development. Enact ordinances and programs to limit sprawl.
• Incorporate public transit into project design.
• Require measures that take advantage of shade, prevailing winds, landscaping, and sun screens to reduce energy use.
• Preserve and create open space and parks. Preserve existing trees and require the planting of replacement trees for those removed in construction.
• Impose measures to address the "urban heat island" effect by, *e.g.*, requiring light-colored and reflective roofing materials and paint; light-colored roads and parking lots; shade trees in parking lots; and shade trees on the south and west sides of new or renovated buildings.
• Facilitate "brownfield" development. (Brownfields are more likely to be located near existing public transportation and jobs.)
• Require pedestrian-only streets and plazas within developments, and destinations that may be reached conveniently by public transportation, walking, or bicycling.

Solid Waste Measures

• Require projects to reuse and recycle construction and demolition waste.
• Implement or expand city- or county-wide recycling and composting programs for residents and businesses.
• Increase areas served by recycling programs.
• Extend the types of recycling services offered (*e.g.*, to include food and green waste recycling).
• Establish methane recovery in local landfills and wastewater treatment plants to generate electricity.
• Provide public education and publicity about recycling services.

See Office of the California Attorney General, Global Warming Mitigation Measures (http://ag.ca.gov/newsalerts/ release.php?id=1433&).

The AEP similarly recommends in its draft white paper that lead agencies require the implementation of all feasible and applicable emission reduction strategies contained in the CAT Report or a locally applicable GHG reduction plan if one has been adopted. The AEP concludes that compliance with such strategies would likely support a conclusion that the project would have a less than significant impact on global climate change. AEP Draft White Paper at 12–13.

Critics of this approach note that many of the CAT strategies are not applicable to land use projects. Moreover, while the GHG emission reduction strategies identified in the CAT Report are quantified statewide, there is no recognized basis for quantifying the CAT's strategies on a project-by-project basis. Thus, there is

no recognized way of quantifying whether the implementation of GHG emission reduction strategies avoids or substantially lessens a specific project's otherwise cumulatively considerable global climate change effects. Thus, when an agency concludes that a project's GHG emissions are cumulatively considerable, in the absence of irrefutable evidence that the required mitigation measures avoid or substantially lessen those impacts, lead agencies are well advised, in the exercise of caution, to adopt a statement of overriding considerations in support of the project.

Alternative Approaches to CEQA Analysis of Climate Change Impacts

CEQA documents may address GHG emissions and a project's potential impacts on climate change by using one of the following approaches:

- Limited discussion of the issue followed by a finding that the impact is too speculative for evaluation;
- A "qualitative" analysis that discusses the issue in more detail, but ultimately concludes that one or more elements of the analysis are too speculative for determination; or
- A "quantitative" analysis that makes determinations regarding the project's anticipated GHG emissions, findings of significance, and the adequacy of feasible mitigation measures.

The following checklists summarize some of the fundamental components to these varying approaches:

Alternative 1—Findings of Infeasibility or Speculation

- A discussion of the scientific knowledge regarding climate change.
- A discussion of the regulatory setting pertaining to climate change at the international, national, state, and, if applicable, regional and local levels.
- A discussion of the GHG emission reduction measures incorporated into the project.
- A discussion of the distinction between direct and cumulative impacts.
- A discussion of the various methodologies that are available to assess the project's anticipated GHG emissions and/or thresholds of significance.
- A finding that there are no accepted methodologies or standards for measuring the project's anticipated GHG emissions and/or determining a threshold of significance.
- A finding that, after thorough investigation, the potential impact is too speculative for evaluation under 14 Cal Code Regs §§15145 and 15151.

Alternative 2—A Qualitative Analysis

- A discussion of the scientific knowledge regarding climate change.
- A discussion of the regulatory setting pertaining to climate change at the international, national, state, and (if applicable) regional and local levels.
- A discussion of the project's anticipated GHG emissions considering the project as a whole.
- A discussion of the distinction between direct and cumulative impacts.
- A discussion of the various methodologies that are available to assess the thresholds of significance.
- A determination that a threshold for significance is too speculative.
- A discussion of the project's proposed GHG emission reduction measures.
- A recommendation that the project implement as mitigation measures the feasible recommendations from the CAT Report or other local GHG emission reduction plan.
- A finding that, based on the implementation of GHG emission reduction measures recommended by the CAT or some other applicable plan, the project's cumulative impacts would likely be less than significant.

Alternative 3—A Quantitative Analysis

- A discussion of the scientific knowledge regarding climate change.
- A discussion of the regulatory setting pertaining to climate change at the international, national, state, and (if applicable) regional and local levels.
- A discussion of the project's anticipated GHG emissions considering the project as a whole.
- A discussion of the distinction between direct and cumulative impacts.
- A discussion of the adopted threshold for significance (*i.e.*, consistency with the GHG emission reduction requirements of AB 32).

• A discussion of the project's proposed GHG emission reduction measures.
• If there is a finding that the proposed project's GHG emissions are cumulatively considerable under the adopted threshold of significance, a discussion of all feasible mitigation measures that could avoid or substantially lessen the impacts.
• A finding that, with the implementation of the proposed mitigation measures, the cumulatively considerable impacts would be substantially lessened; or, alternatively, a finding that the project, even with the implementation of all feasible mitigation measures, would result in significant and unavoidable impacts that would necessitate the adoption of a statement of overriding considerations in order to approve the project.

Conclusion

Since the legislature's enactment last fall of the Global Warming Solutions Act, the times are indeed "a-changin'" with respect to the requirements for environmental analysis of climate change impacts under CEQA. Until CARB provides some guidance regarding baseline conditions for GHG emissions and standards for significance, CEQA practitioners will continue to grapple with a climate of uncertainty. The words of Bob Dylan, which today seem eerily prophetic, are a fitting conclusion:

> Come gather 'round people wherever you roam
> And admit that the waters around you have grown
> And accept it that soon you'll be drenched to the bone.
> If your time to you is worth savin'
> Then you better start swimmin' or you'll sink like a stone,
> For the times they are a-changin'.

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