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Assessing Climate Change:

Evaluating and Mitigating Global Warming Impacts under NEPA and State Environmental Review Statutes

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I. Introduction¹

During the past 24 months, a political and cultural shift has occurred regarding climate change. Just two short years ago, Vice President Gore was forced to characterize the issue as an “inconvenient truth;” on December 10, 2007, the issue formed the basis for Mr. Gore’s receipt of the Nobel Peace Prize. Every newspaper, news magazine, and radio program has some story relating to climate change. It has become a central issue in the presidential campaign, and the topic of numerous “updates,” “webcasts” and technical briefings for lawyers.

The most recent legal development took place on November 15, 2007, when the Ninth Circuit Court of Appeals issued its opinion in *Center for Biological Diversity v. National Highway Traffic Safety Administration*.² While the case arose out of challenges to new automobile fuel efficiency standards for light trucks and SUVs developed by the National Highway Traffic Safety Administration (NHTSA), the broadest significance of the case may well be the Ninth Circuit’s holding, for the first time, that federal agencies must assess carbon dioxide emissions and other climate change impacts in environmental review documents prepared under the National Environmental Policy Act (NEPA). While in most cases, the court would remand the matter to the agency to determine whether an environmental impact statement (EIS) should be prepared, here, the Ninth Circuit took the unusual step of ordering NHTSA to prepare an EIS assessing carbon dioxide emissions attributable to the new standards, as well as the actual environmental effects associated with climate change.

In July 2007, King County Executive Ron Sims issued an Executive Order requiring County agencies to consider climate change impacts as part of their project review under Washington’s State Environmental Policy Act (SEPA).³ Meanwhile, a number of cities and counties around the country are actively trying to promote green building through the adoption of initiatives ranging from modification of zoning codes to the imposition of a carbon tax in Boulder, Colorado in 2006, and a similar proposal this fall from the City of Portland, Oregon.

¹ The authors would like to acknowledge the significant assistance of their colleague Michael Lufkin in putting these materials together.

² ___ F.3d ___, 2007 U.S. App. LEXIS 26555 (9th Cir. Nov. 15, 2007).

³ The King County Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act (June 27, 2007) is available at <http://www.metrokc.gov/exec/news/2007/pdf/climateimpacts.pdf>.

These legal developments present both risks and opportunities for both businesses and municipalities. Risk is created as the legal landscape changes, new regulations are put in place and new rules are developed through litigation. The need to assess and mitigate greenhouse gas (GHG) impacts of new projects will ultimately affect any business that decides to build a new plant, construct new office space, or modify its operations so as to lower its energy costs, as well as those jurisdictions and regulatory agencies that permit such projects.

These changes also create opportunities, particularly for businesses operating in states which have adopted enforceable GHG reduction limits or entered into regional compacts imposing those types of limits. And while the federal government has been trailing behind the initiatives brought by state and local government leaders, legislation is currently pending in the U.S. Senate that may impose new regulatory rules and create new opportunities.

In order to place these developments in context, these materials first outline developments in climate change regulation by states and local governments, provide an overview of the federal legislation, and how those initiatives are impacting new project development. We will also provide a brief overview of litigation under NEPA and California's Environmental Quality Act (CEQA) and then will outline what we see as some of the implications of this litigation, as well as the impacts that I believe it will have in project review and permitting. Finally, we offer some recommendations regarding some of the mitigation options available for new development.

II. A Changing Regulatory Climate

A. *Massachusetts v. EPA*

On April 2, 2007, the U.S. Supreme Court issued its opinion in *Massachusetts, et. al. v. United States Environmental Protection Agency*.⁴ In that case, the Court held for the first time that carbon dioxide and other GHGs are air pollutants and may be regulated in new motor vehicles by EPA under the federal Clean Air Act (CAA).

The majority in *Massachusetts* summarily rejected EPA's position that it lacked the authority under the CAA to regulate GHGs. The Court held that the statutory text of the CAA is unambiguous in providing EPA with that authority, because the CAA defines an "air pollutant" as "any air pollution, agent, or combination of such agents, including any physical, chemical ... substance or matter which is emitted into or otherwise enters the ambient air. ..." CAA, Section 7601(g). The Court determined that this definition "embraces all airborne compounds of whatever stripe" and certainly includes GHGs.⁵

The Court also rejected the policy reasons offered by EPA for not regulating GHGs

⁴ 549 U.S. ___, 2007 U.S. LEXIS 3785 (2007).

⁵ *Id.* at *18.

under the CAA. The Court held that the CAA requires EPA to promulgate regulations for "... any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in the (Administrator's) judgment cause, or contribute to, air pollution, which may reasonably be anticipated to endanger public health or welfare."⁶

The Court held that EPA can only avoid developing regulations for GHGs if it determines that "greenhouse gases do not contribute to climate change" or if it has "some reasonable explanation" as to why it cannot determine whether GHGs contribute to climate change.⁷ The Court remanded the case back to EPA for a determination on this point.

B. State Reporting Rules

While EPA is developing its administrative rules to implement the *Massachusetts* decision, as with many other areas of climate change regulation, the states are ahead of the federal government. The California Air Resources Board (CARB) issued a draft regulation on October 19, 2007 requiring mandatory reporting of GHG emissions beginning in 2009. The proposed regulation requires more than 800 industrial and commercial sources in California to annually measure and report their GHG emissions to CARB. The regulation also requires third-party verification of emission reports submitted by regulated sources. Adoption of a mandatory reporting rule is required by AB 32, also known as the Global Warming Solutions Act of 2006.⁸

Several other states are already considering similar measures. The state of New Mexico has already proposed rulemaking to require mandatory GHG reporting from major GHG emitters and is scheduled to adopt rules early next year.⁹ Other western states, including Washington and Oregon, have committed to adopting similar reporting rules as part of their involvement in the Western Climate Initiative, and Washington's legislature adopted such rules in this past session.¹⁰

C. *Center for Biological Diversity v. NHTSA*

As noted above, in *Center for Biological Diversity v. NHTSA*, the Ninth Circuit issued a landmark ruling regarding the need to take account of climate change impacts under NEPA. Lest there be any doubt on this issue, the Ninth Circuit emphatically declared that the "impact of greenhouse gas emissions on climate change is

⁶ *Id.*

⁷ *Id.* at 20.

⁸ A copy of AB 32 can be found at <http://www.arb.ca.gov/cc/docs/ab32text.pdf>.

⁹ Information on New Mexico's GHG reporting rulemaking can be found at http://www.nmenv.state.nm.us/aqb/GHG/ghgrr_index.html.

¹⁰ See press release, *Five Western Governors Announce Regional Greenhouse Gas Reduction Agreement*, copy available at http://www.governor.wa.gov/news/2007-02-26_WesternClimateAgreementRelease.pdf.

precisely the kind of cumulative impact analysis that NEPA requires agencies to conduct.”¹¹ Following this decision, agencies will be hard pressed to avoid evaluating climate change impacts for a broad range of projects requiring federal approvals or permits, such as energy facilities and transmission lines, casinos, landfills, mines, and transportation projects. The court’s holding also suggests that simply quantifying emissions and comparing them to a baseline is insufficient. Instead, project proponents will likely be required to evaluate the interplay between a project’s emissions, emissions attributable to past and reasonably foreseeable future actions, and the actual environmental impacts attributable to climate change.

The decision’s impacts may also extend to state, local, and private development projects subject to state environmental review statutes such as SEPA or CEQA, where case law interpreting such statutes frequently follows NEPA jurisprudence.

D. GHG Assessment Required in Washington, Massachusetts and California

In July 2007, King County Executive Ron Sims issued an Executive Order that required all new projects that are evaluated under Washington’s SEPA to include an assessment of climate change as part of the initial project review. No new regulations or County statutes were adopted in adding the new requirements. Instead, Sims grounded his decision on the County’s existing SEPA authority. The Executive Order “require[s] and direct[s] all King County Departments, effective September 1, 2007, to require that climate impacts, including but not limited to those pertaining to greenhouse gasses, be appropriately identified and evaluated when such Departments are acting as the lead agency in reviewing the environmental impacts of private and public proposals pursuant to the State Environmental Policy Act.”¹²

The Executive Order cited the Supreme Court’s decision in *Massachusetts v. EPA*, as well as previous Executive Orders under which County departments were directed to “employ increasingly aggressive strategies” and “innovative environmental management,” including “coordinated strategies to mitigate and adapt to global warming.”¹³

The City of Seattle adopted a similar measure on December 4, 2007, by a unanimous vote of the City Council. Seattle’s ordinance will take effect on March 31,

¹¹ 2007 U.S. App. LEXIS 26555, at *114-115.

¹² Executive Order at 3. A copy of the Executive Order can be found at <http://www.metrokc.gov/exec/news/2007/pdf/climateimpacts.pdf>.

¹³ The quoted language comes from prior King County Executive Orders PUT 7-5, 7-7 and 7-8.

2008, and will require developers to quantify GHG emissions for all projects subject to the City's environmental review and permitting process under SEPA.¹⁴

The County is currently amending its comprehensive plan and developing ordinances which will establish the types of projects are subject to mitigation, identify the types of mitigation that are required, and clarify that the County is authorized to use its substantive SEPA authority to condition or deny projects based on greenhouse gas emissions. The City of Seattle has indicated that it will attempt to develop its own SEPA regulations consistently with the County's regulations.

King County and the City of Seattle are now the second and third jurisdictions to formally require GHG assessments in environmental review documents. In July 2007, the State of Massachusetts issued a draft policy under the Massachusetts Environmental Policy Act (MEPA) which requires state agencies and private developers to quantify and mitigate GHG emissions associated with certain types of projects.¹⁵ The MEPA policy specifically applies to all projects proposed or funded by a state agency, and the following private proposals: (1) projects which require a state air permit; (2) office projects generating 3,000 or more vehicle trips per day; (3) mixed-use projects with 25% office space generating 6,000 or more vehicle trips per day; and (4) other private projects generating 10,000 vehicle trips or more per day. Project proponents are required to assess the direct emissions (on-site stationary sources), indirect emissions from energy consumption and transportation, and other GHG emission sources. Unlike King County and Seattle's policies which currently only require quantification of GHG impacts, the draft MEPA policy also provides proposed measures for mitigating GHG emissions.

In California, local planning agencies are beginning to assess GHG emissions associated with their land use planning documents even though the State has not adopted formal requirements for GHG analyses under its environmental review statute, CEQA. The California legislature, however, passed a limited and temporary prohibition on climate change lawsuits under CEQA in response to California Attorney General Brown's landmark, and highly controversial, climate change lawsuit against San Bernardino County. Senate Bill 97 (SB-97) prohibits CEQA climate change challenges to certain publicly-funded transportation and flood-control projects, and expires in 2010.¹⁶ Significantly, SB-97 does not bar challenges to the

¹⁴ See Seattle Will Review City Projects for Climate Impacts, *Environment News Service* (December 3, 2007), which can be viewed at <http://www.ens-newswire.com/ens/dec2007/2007-12-03-093.asp>.

¹⁵ The Massachusetts MEPA policy is available at: <http://www.mass.gov/envir/mepa/pdf/misc/ghgemissionspolicy.pdf>.

¹⁶ See Senate Bill No. 97 (passed August 21, 2007), which can be viewed at: http://info.sen.ca.gov/pub/07-08/bill/sen/sb_0051-0100/sb_97_bill_20070821_enrolled.pdf. SB-97 provides that failure to adequately assess GHG emissions does not create a CEQA cause of action for: (1) transportation projects funded under California's Highway Safety,

majority of discretionary land use decisions or comprehensive land use planning documents, and does not prohibit CEQA challenges to privately-funded development projects. As noted below, at least three such lawsuits are currently pending in California courts. Additionally, SB-97 also requires California to develop guidelines by 2009 on what parties must do to assess and mitigate GHG emissions under CEQA.

E. Local Initiatives to Encourage Green Building

More than 25 American cities of all sizes have started green building initiatives by setting mandatory or aspirational goals for all new public buildings to meet some level of the United States' Green Building Council's "LEED" standards.¹⁷ The potential reductions in GHG emissions that local government initiatives can achieve are significant, because construction is the nation's biggest manufacturing industry and buildings account for 39% of U.S. energy use, 70% of electricity consumption, and 12% of potable water use.¹⁸

For example, Atlanta, Georgia requires all city-funded projects over 5,000 square feet or costing \$2 million to meet the LEED Silver award. Publicly-funded new and renovated projects over 5,000 square feet in Bellingham, Washington, must also achieve LEED Silver standards. In Los Angeles, since 2002, 48 public buildings were designed to meet LEED standards. Houston adopted a resolution in 2004 stating that all city-owned buildings over 10,000 square feet must use LEED to the greatest extent practical and reasonable, with a target of LEED Silver certification. Boston is the first city to require all public and private development projects over 50,000 square feet to meet the LEED for New Construction standard.¹⁹ USGBC estimates that 46% of LEED projects are owned by federal, state and local governments.

In February 2000, Seattle adopted a sustainable building policy using LEED certification as a design and measurement tool. All newly constructed or renovated public facilities and buildings over 5,000 gross square feet of occupied space must

Traffic Reduction, Air Quality and Port Security Bond Act of 2006; or (2) projects funded under California's Disaster Preparedness and Flood Prevention Bond Act of 2006.

¹⁷ For more information on the LEED program, visit the USGBC website at www.usgbc.org/leed.

¹⁸ See *Building Green, Building Smart*, Arlington County, Virginia, which can be viewed at http://www.arlingtonva.us/departments/EnvironmentalServices/Documents/1107Green_Building.pdf at p. 2

¹⁹ Katie Zizima, "Boston Plans to Go 'Green' on Large Building Projects," *New York Times* (December 20, 2006), which can be viewed at http://www.nytimes.com/2006/12/20/us/20boston.html?_r=1&oref=slogin.

meet a minimum LEED Silver rating.²⁰ As of October 2005, Seattle had 38 completed or planned projects targeted for LEED certification, including Seattle City Hall (Gold), the Seattle Public Library Central Library (Silver), and the Seattle Justice Center (Silver).²¹

In 2004, Chicago adopted a set of standards known as “the Chicago Standard” for public buildings derived from the LEED system. The Chicago Standard focuses on site considerations, water conservation, energy efficiency, smart materials (including recycled materials) and high indoor air quality.²² Chicago also has a program that promotes the use of rooftop gardens on top of private and public buildings to reduce energy consumption.²³ The city recently announced a program to replace alley paving with environmentally sustainable porous materials designed to filter surface water before it reaches groundwater.²⁴ A 50% green roof and LEED certification are required for all public projects in Chicago, except community centers and schools. Community centers and schools must either have a 25% green roof or LEED certification plus a 10% green roof, and must also focus on indoor air quality and daylighting.

To put some of these local initiatives in context, it is necessary to look at climate change regulation more generally, in terms of both statewide goals adopted by some states and imposed through regional compacts such as the Western Climate Initiative.

III. The Adoption of Mandatory GHG Emission-Reduction Laws

In May 2007, the Washington Legislature adopted legislation that includes aggressive goals for economy-wide reductions in GHG emissions and stringent performance standards that prohibit Washington utilities from purchasing electricity from coal and other high carbon-emitting sources. The legislation, ESSB 6001, will eventually affect nearly every sector of the state economy.

²⁰ See Building a Better City, City of Seattle Sustainable Building Program 5-Year Report at 5. The report can be viewed at: http://www.seattle.gov/dpd/static/5-year_report_LatestReleased_DPDP_009930.pdf

²¹ *Id.* at 6-7.

²² See “The Chicago Standard: Building Healthy, Smart and Green” which can be viewed at http://egov.cityofchicago.org/webportal/COCWebPortal/COC_ATTACH/ChicagoStandard.pdf.

²³ See City of Chicago: Green Roof Basics, at http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?BV_SessionID=@@ @0755355862.1196896968@@ @&BV_EngineID=cccaddmjllkffcefecelldffhdfgn.0&contentOID=536912065&contentType=EDITORIAL&topChannelName=HomePage

²⁴ See Chicago to Build Green Alleys, Greenwire (November 26, 2007), <http://www.eenews.net/Greenwire/2007/11/26/archive/11?terms=chicago+to+build+green+alleys> (subscription required).

Borrowing heavily from two recent California statutes (S.B. 1368 and A.B. 32), ESSB 6001 implements Governor Gregoire's Executive Order 07-02 by enacting into law GHG emission reduction targets. Under ESSB 6001, GHG emissions in the State are to be reduced to 1990 levels by 2020, to 25% below 1990 levels by 2035, and to 50% below those levels by 2050, or 70% below currently projected annual emission levels for that year. These are aggressive goals for a state that derives much of its electricity from hydroelectric power. In adopting ESSB 6001, Washington joins a growing number of states that have adopted economy-wide GHG emission reduction targets.

Statewide, 45% of the GHGs emitted in Washington are from the transportation sector, 21% from industry (including both energy and non-energy sources), 16% from in-state power generation, and 7% from agriculture.²⁵ While some of the most immediate impacts of ESSB 6001 will fall on the utility sector, meeting the emission reduction targets will ultimately impact all sectors of the state economy, specifically including land use development.

ESSB 6001 does not direct how targeted reductions are to be achieved. It leaves that to the Governor, acting through a recently formed stakeholder group called the Climate Advisory Team. Through that group, the Governor is to develop policy recommendations to be submitted in the 2008 legislative session to achieve the law's stated goals. These recommendations, though not limited by ESSB 6001 must, at a minimum, assess: (1) market mechanisms (such as a cap and trade system); (2) carbon sequestration in forests and geological formations; (3) closure and replacement of the highest GHG emitting power plants at the end of their useful life; (4) utilization of landfill and geothermal gases for electric generation and to reduce methane emissions; and (5) regulatory and tax policies to achieve the Act's emission reduction goals "in a manner that is equitable for electric utilities and consumers."²⁶

Although ESSB 6001 does not direct the state to participate in a cap and trade system, Washington's Governor has already taken steps in that direction by entering into a regional greenhouse pact with other western states and Canadian provinces. The group is committed to developing a joint strategy for reducing GHG emissions that would include the creation of a regional emissions trading system. On August 22, 2007, the eight members of the Western Climate Initiative (WCI) announced a multi-state agreement to reduce GHG emissions, in the aggregate, by 15% below 2005 levels by 2020.²⁷ The Western Climate Initiative is comprised of six states and

²⁵ Washington's Greenhouse Gas Emissions: Sources and Trends, Stacey Waterman-Hoey and Greg Nothstein, WA State Dept. of Community, Trade & Economic Development, December 2006.

²⁶ ESSB 6001 at Sec. 4.

²⁷ Additional information on the Western Climate Initiative (WCI) is available at: <http://www.westernclimateinitiative.org/>.

two western Canadian provinces.²⁸ The aggregate goals adopted among WCI's members set up the possibility of emission trading among members of the pact.

Compliance with the WCI's regional goals will require a 16% reduction in overall GHG emissions within the State of Washington relative to 2000 emissions levels, and a 28% reduction of GHG emissions by 2020, when compared with emissions that would occur if no changes were made, the so-called "business as usual" standard.²⁹

In order to achieve these types of reductions, it is apparent that the state will have to make significant reductions from discretionary decisions made in the built environment. As is shown below, Washington is not alone in attempting to achieve GHG reductions using land use regulations.

IV. The Washington Example: Analyzing Climate Change Impacts under State Environmental Review Statutes

Assessment of a project's impacts on climate change necessarily involves answering three questions: (1) what GHG emissions are attributable to the project – either directly or indirectly?; (2) what methodology should be used to measure or quantify a project's GHG emissions?; and (3) do the project's GHG emissions rise to the level of significance under SEPA, thereby requiring mitigation?

A. What GHG emissions are attributable to the project?

Generally, there are two types of GHG emissions from new project developments that can be analyzed under SEPA – direct emissions and indirect emissions.

1. Direct Sources of GHG Emissions

Direct GHG emissions are emissions from sources that are owned or controlled by the project proponent. Direct stationary emission sources result from the onsite combustion of fossil-fuels in boilers, burners, furnaces, ovens, or other equipment that combusts carbon bearing fuels. Direct stationary sources are often the most significant source of emissions for industrial/manufacturing projects, but are less relevant for residential and commercial development.

2. Indirect Sources of GHG Emissions

Another potentially large source of GHG emissions for new projects, particularly

²⁸ The eight members that make up the WCI are Arizona, California, New Mexico, Oregon, Utah, and Washington and the Canadian provinces of British Columbia and Manitoba.

²⁹ For a detailed explanation of the WCI's Statement of Regional Goal, including charts outlining the reductions for each of the eight members, see <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F13006.pdf>.

residential and commercial projects, is indirect emissions. Indirect GHG emissions are those that are a consequence of the project development, but occur at sources owned or controlled by another entity. Examples of indirect emissions include: GHG emissions generated in the manufacture and transport of building materials (e.g., concrete and steel), emissions generated from the consumption of fossil-fuel generated electricity used for heating and cooling of buildings and operation of appliances, and emissions generated from mobile sources, typically cars and trucks driving to and from the development.

3. A Word on Speculative Impacts

The Washington Supreme Court has been clear that permitting agencies need not consider the “remote and speculative consequences of a proposed project” in environmental review documents.³⁰ Project proponents may be tempted to point to this rule to argue that GHG emissions from proposed projects are inherently speculative, since they are based on assumptions regarding how end-users of residential or commercial developments may behave. In our view, such arguments would be misplaced since assessment of impacts in other areas (viz., transportation, water use, schools) are routinely made using assumptions regarding the behavior of residents or commercial tenants. While there are real questions regarding the cumulative impacts of GHG emissions (which are addressed in more detail below), the “speculative impacts” argument only applies to developments that have been proposed, but which are not yet firm enough for assessments to be made.³¹

B. What Methodology May be Used to Quantify a Project’s Emissions?

The heart of King County’s and Seattle’s new SEPA policies is a requirement that project proponents quantify GHG emissions that will result from the project. Quantifying direct emissions is a relatively straightforward proposition because methodologies exist to quantify emissions from the combustion of on-site fossil-fuels, and these emissions are directly attributable to the project. GHG emissions from direct sources are typically quantified by applying a CO₂ emissions factor to the type and quantity of fuel consumed by the on-site source. For example, if the project contains a heating system that utilizes natural gas, the GHG emissions can be calculated by applying the natural gas CO₂ emissions factor to the amount of fuel consumed.

³⁰ *Cheney v. City of Mountlake Terrace*, 87 Wn.2d 338, 356 (1976) (EIS did not need to consider impacts of future development for which no specific proposal had yet been made).

³¹ *SEAPC v. Cammack II Orchards*, 49 Wn. App. 609, 614-15 (1987) (an EIS “need not cover subsequent phases if the initial phase under consideration is substantially independent of the subsequent phase or phases, and the project would be constructed without regard to future development”) (*citing Cheney*, 87 Wn.2d at 345); *Cheney*, 87 Wn.2d at 356 (EIS did not need to consider impacts of future development for which no specific proposal had yet been made).

Analyzing indirect emissions can be more challenging than direct emissions. The reason for this is that it is often difficult to attribute indirect emissions to a project. For example, construction of a new commercial office building will necessarily result in employees driving their cars and trucks to and from the development. While it is possible to estimate the amount of fossil-fuels consumed by these vehicle trips, and therefore estimate GHG emissions, it can be difficult to determine whether, or to what extent, these emissions should be attributed to the new project.

Certain projects may require analysis and modeling of other sources of emissions. For example, a project that destroys a carbon sink (e.g., a large timber harvest) could potentially require an analysis of the GHG emissions resulting from the destruction of the sink. Similarly, a landfill development project may have to analyze possible future methane emissions resulting from the project. Project proponents should be cognizant that not all land use projects will fit neatly into a prescribed formula and that individual project analysis will be required.

C. King County's Guidance for Implementing the New Executive Order

To assist developers in analyzing project GHG emissions, King County issued a draft guidance document. The guidance, which is referred to as a climate change impacts worksheet, identifies three categories of project emissions - upstream, on-site, and downstream.³² The County defines "upstream GHG" emissions as those that are generated in the manufacturing of construction materials. "On-site" emissions are those created during the construction of the project. "Downstream" emissions are those generated as a result of energy use associated with the projects on-going operations. For each of these categories, the County has provided a methodology for calculating GHG emissions for various sources of emissions within the categories.

While designed to help project proponents comply with the Executive Order, utilization of the County's guidance document will not serve as a shield to project proponents from third-party lawsuits, and individual project proponents should determine whether complying with the County's guidance is sufficient to adequately assess the project's GHG emissions.

D. Developing a Mitigation Policy to Accompany the Assessment of GHG Impacts

When King County first announced its GHG assessment policy last fall, it was clear that the policy's only requirement was for those filing new SEPA checklists to

³² King County's climate change impacts worksheet can be viewed at: <http://www.metrokc.gov/permits/codes/pdf/Climatechangeimpactsworksheetaugust312007.pdf>.

quantify their project's GHG emissions. No mitigation for those emissions was then required. However, since adoption of the assessment policy, King County has been working on an update to the County's comprehensive plan and SEPA ordinance. While currently under development, these steps are intended to establish the "significance" threshold, develop mitigation criteria, and clarify that the County can use its substantive SEPA authority to condition or deny projects based on greenhouse gas emissions.

In order to use substantive authority, SEPA requires agencies to identify specific "policies, plans, rules, or regulations . . . as a basis for the exercise of substantive authority."³³ As part of the County's four-year comprehensive plan update, King County Executive Sims has proposed adding language to the comprehensive plan stating that:

King County shall evaluate development proposals subject to the State Environmental Policy Act (SEPA) for their greenhouse gas emissions. King County may exercise its substantive authority under SEPA to condition or deny development proposals in order to mitigate associated individual or cumulative impacts to global warming.³⁴

This language is designed to provide the County with a formal policy that it can identify in order to wield its substantive SEPA authority. The County's proposed comprehensive plan update is currently subject to public review and comment, and the County is expected to finalize the update in late 2008.³⁵

The County is also working with stakeholders to develop threshold determinations and mitigation options, which will likely take the form of amendments to the County's SEPA ordinance and administrative regulations. The County has established an ambitious timeline for adopting these regulations – County Executive Sims indicated that he would like to propose SEPA legislation to the County Council in May 2008.³⁶

One area where the County has looked for examples of this type of threshold decision and mitigation options is a white paper produced in January 2008 by the California Air Pollution Control Officers Association (CAPCOA) entitled "CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from

³³ WAC 197-11-160; see also King County Ordinance 20.44.080.

³⁴ King County Comprehensive Plan Policy E-207 (proposed). The County's proposed comprehensive plan update can be viewed at:
<http://www.metrokc.gov/permits/codes/CompPlan/2008/#chapters>.

³⁵ For the County's comprehensive plan update timeline, please see:
http://www.kingcounty.gov/council/comprehensive_plan/Timeline.aspx.

³⁶ Keith Ervin, "King County Executive Wants Greener Development" Seattle Post-Intelligencer (Feb. 28, 2008) (Available at:
http://seattletimes.nwsourc.com/html/politics/2004247846_climate28m.html).

Projects Subject to the California Environmental Quality Act.”³⁷ The CAPCA White Paper considers the application of “thresholds” and offers three alternative programmatic approaches toward determining whether GHG emissions are significant.³⁸ Just as SEPA does, CEQA requires that public agencies refrain from approving projects with significant adverse environmental impacts if there are feasible alternatives or mitigation measures that can substantially reduce or avoid those impacts.³⁹

With respect to a CEQA “threshold decision,” the CAPCOA White Paper considers setting the significance threshold at zero, setting it higher than zero, and not utilizing a threshold level at all. In the context of SEPA, a significance thresholds would be used to determine whether a project would receive a determination of significance (DS) which would result in an environmental impact statement (EIS) being prepared, a determination of non-significance (DNS) or mitigated determination of non-significance (MDNS) which would allow the applicant to avoid preparation of an EIS. In addition, significance thresholds are used to help identify the level of mitigation needed to reduce a potentially significant impact to a less than significant level.⁴⁰

CAPCOA considered the use of no thresholds, a “zero” threshold and a non-zero threshold, ultimately concluding that a non-zero threshold was the most defensible analysis and most likely to result in mitigation that could be implemented and that was likely to allow local jurisdictions to achieve their GHG reduction requirements as mandated by California’s AB 32.⁴¹ The paper presents a detailed consideration of various non-zero threshold options from the perspective of technical and economic feasibility, cost-effectiveness, and the advantages and disadvantages of implementation of local, regional and statewide standards.⁴² A thorough discussion of all of these options is beyond the scope of these materials – however, it is essential that that any jurisdiction with a substantive environmental review statute (like SEPA) undertake a similar analysis, because the “threshold decision” is at the heart of any system that requires assessment and mitigation of GHG impacts. Implementation of any assessment and mitigation system will require the permitting jurisdiction to make an assessment as to “what counts” and “what doesn’t,” as well as also deciding how to count emissions and how to count the benefits of mitigation.

³⁷ Hereafter “CAPCOA White Paper.” A copy of this publication can be viewed at this link: <http://www.capcoa.org/ceqa/CAPCOA%20White%20Paper%20-%20CEQA%20and%20Climate%20Change.pdf>.

³⁸ CAPCOA White Paper at 1-2.

³⁹ CAPCOA White Paper at 1.

⁴⁰ See CAPCOA White Paper at 13.

⁴¹ *Id.* at 13-35.

⁴² *Id.* at 56-57 (with tables discussing various alternatives).

V. Litigation

A. Pending and Settled Litigation under CEQA and NEPA

While King County, Seattle and Massachusetts are currently the only jurisdictions which explicitly require GHG assessments in their environmental review documents, there has been a groundswell of litigation involving the question of when and how project proponents must address climate change issues under both NEPA and CEQA.

On August 21, 2007, California and San Bernardino County entered into a landmark settlement under which the County agreed to analyze and adopt feasible measures to mitigate GHG emissions attributable to population growth and development predicted under the County's comprehensive land use update.⁴³ California filed suit earlier in the year alleging that the County violated CEQA because the environmental review documents supporting the County's 30-year land use update did not quantify GHG emissions or discuss how population growth would impact the State's ability to achieve the GHG emission reduction targets mandated by California's Global Warming Solutions Act (AB-32). California also submitted comment letters to twelve other counties asking them to assess GHG emissions in conjunction with their land use updates, and further lawsuits by Attorney General Brown would not be barred by SB-97.⁴⁴

Furthermore, at least three CEQA climate change lawsuits challenging private development projects are currently pending in California trial courts.⁴⁵ These lawsuits challenge a proposed 1,500 unit residential development in Desert Hot Springs, a 2,700 unit residential/commercial development in Banning, and a commercial composting facility in Hinkley. In each case, plaintiffs allege that the CEQA analyses supporting the proposals failed to assess GHG emissions and discuss potential GHG mitigation measures.

At the federal level, even prior to the Ninth Circuit's decision in *Center for Biological Diversity*, courts in at least two circuits required federal agencies to quantify GHG emissions in NEPA documents.⁴⁶ Lawsuits alleging that agencies failed to assess

⁴³ The Settlement Agreement is available at: http://ag.ca.gov/cms_pdfs/press/2007-08-21_San_Bernardino_settlement_agreement.pdf.

⁴⁴ Office of the Attorney General Press Release (Aug. 21, 2007) (available at <http://ag.ca.gov/newsalerts/release.php?id=1453&>).

⁴⁵ *Ctr. for Biological Diversity v. City of Desert Hot Springs*, Riverside County Superior Court (challenging EIR for 2,700 unit residential/commercial development); *Center for Biological Diversity v. City of Banning*, Riverside County Superior Court (challenging EIR for 1,500 unit residential development); *Center for Biological Diversity v. San Bernardino County*, San Bernardino County Superior Court (challenging permit for commercial compost facility).

⁴⁶ See *Border Power Plant Working Group v. Dep't of Energy*, 467 F.Supp.2d 1040 (S.D. Cal. 2006) (requiring the Department of Energy to assess GHG emissions associated with a

GHG emissions are likely to continue, and a recent decision by the Northern District of California suggests that this litigation will be focused on whether a particular project is a but-for cause of effects on the domestic environment. In *Friends of the Earth v. Mosbacher*, the court held that two federal agencies that provide funding and loan guarantees for overseas projects were not required to prepare EISs because the agencies did not wield decision-making authority sufficient to convert foreign energy projects into federal actions.⁴⁷ In dicta, however, the court noted that it “would be difficult ... to conclude that [there is] a genuine dispute that GHGs do not contribute to global warming,” and suggested that future NEPA climate change litigation would be focused on whether a particular agency’s action was the but-for cause of effects on the domestic environment.⁴⁸ These dicta proved to be prescient after the Ninth Circuit’s decision in the *Center for Biological Diversity* case.

B. Climate Change Impacts as Background Permitting Conditions

In addition to a project’s direct impact on the environment, some of the cases brought under NEPA⁴⁹ and under CEQA⁵⁰ have sought to require permit writers to consider the impacts of climate change as a background condition against which to assess a project’s overall environmental impact. An obvious example of this type of “background condition” includes whether a potential rise in sea level would require additional conditions on proposed waterfront development. Another example would be a need to determine whether existing floodplain maps need to be re-drawn if precipitation patterns or water levels have been modified as a result of climate change.

proposal to connect the southern California power grid to two coal fired plants in Mexico); *Mid-States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003) (requiring Surface Transportation Board to assess GHG emissions attributable to new rail line connecting power plants in the Midwest to coal fields in Wyoming).

⁴⁷ 488 F. Supp.2d 889 (N.D. Cal. 2007).

⁴⁸ *Id.* at *27 n.19.

⁴⁹ See *Ctr. for Biological Diversity v. Kempthorne*, CV 07-0894 (N.D. Cal.) (filed Feb. 13, 2007) (after the Fish and Wildlife Service authorized incidental takes of polar bears and Pacific walrus under the Endangered Species Act during oil and gas development activities in Alaska, plaintiffs challenged the permit in February 2007, alleging that FWS failed to assess “the impacts of takings of polar bears and Pacific walrus in the context of global climate change”).

⁵⁰ See, e.g., *NRDC v. Reclamation Board*, Sacramento County Super. Ct. No. 06CS01228 (filed Aug. 18, 2006) (Plaintiffs sought to require the Reclamation Board to consider how rising sea levels will exacerbate the environmental impacts of a 4,900 acre mixed-use development in Sacramento’s San Joaquin Bay Delta, a system of lowland islands created by myriad levees and natural and man-made sloughs).

C. When Do a Project's GHG Emissions Rise to a Level of a "Significant Impact" on the Environment?

As noted above, CAPCOA and King County are currently trying to address the "threshold" decision of when a project's GHG impacts rise to the level of significance. The reason is that NEPA, CEQA and SEPA all require agencies to prepare an EIS describing the environmental impact and assessing alternatives to proposals if there is a substantial question as to whether a proposed project may have a "significant effect" on the environment, either individually or cumulatively.⁵¹ In applying these terms, it is necessary to determine both: (1) where projects have an impact; and (2) when an impact qualifies as "significant."

1. Individual Project Significance

At the level of the threshold decision, the decision as to "significance" will turn on the impacts of the individual project. King County has already indicated that it is looking for an assessment of an individual project's "upstream" (for example, impacts from a choice of building materials), "mid-stream" (impacts from the construction itself, such as transportation vehicles and other heavy equipment), and "downstream" impacts (defined as those impacts generated by residents or commercial tenants which are created as a result of the development itself).

The question is how to determine when a project's impacts are "significant." Given the global nature of climate change, the relative significance of an individual project may seem minor when compared with global GHG emissions, state-wide GHG emissions, or even the economy-wide emission reduction targets set by ESSB 6001. When compared within these contexts, it is easy to argue that the marginal impact of an individual project is negligible and therefore "insignificant."

2. Cumulative Significance

The problem with pointing solely to the marginal impact of an individual project is the requirement to assess cumulative impacts. While SEPA does not define "cumulative impacts," NEPA's regulations define the term as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."⁵² The Ninth Circuit has now made it clear that the "impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impact analysis that NEPA requires agencies to conduct."⁵³ Previous federal courts had held that "[a] proper

⁵¹ *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). The quoted text comes from 40 C.F.R. 1508.7 (defining "cumulative impact"). Washington's SEPA statute provides at RCW 43.21C.030(2)(c) that an EIS is required for "major actions significantly affecting the quality of the environment."

⁵² 40 CFR § 1508.7.

⁵³ *Ctr. for Biological Diversity*, 2007 U.S. App. LEXIS 26555 at *114-115.

consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.”⁵⁴

The bases to require assessment of the GHG emissions of every individual project are the statewide and regional goals adopted by the State of Washington in ESSB 6001 and as part of the WCI regional goal that the State accepted in August 2007. Under both ESSB 6001 and the WCI regional goal, Washington has adopted aggressive targets for *reducing* overall GHG emissions. In the face of these regulatory requirements, the question becomes, not whether an individual project has a significant impact at the margin, but instead, whether any project that increases overall GHG emissions can be seen as not having a significant impact. It was this logic that the State of California used in its lawsuit against San Bernardino County.

VI. Local Responses to Climate Change

A. Making Potential Climate Change Impacts Part of the Background Permitting Environment

In addition to mitigating project impacts, planners and permit writers may need to change their base assumptions regarding the environment in which projects are permitted. For instance, if climate change causes a rise in sea level, what impacts will that have on waterfront or coastal development? In Washington and other states with a shoreline development act, does the median high water mark have to rise? Even inland projects can be affected – for instance, a slight temperature rise might cause existing permitted water users to draw down an aquifer, changing the requirements for a project proponent who has to justify that it has full water rights to supply all anticipated development. Agricultural users may have to pay more attention to urban demands, and vice versa.

B. A New Era in Land Use Planning and Project Permitting?

The legislation in California and Washington has provided local agencies with a new goal to integrate into their comprehensive plans – GHG emissions reductions. The failure to do so can (and already has) generated litigation, including litigation brought by the state of California itself.

King County and the City of Seattle’s recent action requiring at least assessment of GHG emissions appears to be a harbinger of things to come. In issuing his executive order, Ron Sims characterized it as a warning shot to the rest of the state: “Every jurisdiction is on notice now.” Washington State Department of Ecology

⁵⁴ *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989,993 (9th Cir. 2004).

Director Jay Manning stated that the state is considering measures similar to King County's.

VII. Conclusion and Recommendations

Based on our review of the cases and the various state and municipal actions to address these impacts, the following are recommendations that both municipal and business leaders should consider:

- First of all – get involved. Washington has already adopted an enforceable GHG emissions reductions limit, both as part of state law and also as part of the regional WCI compact. The regulations implementing those statutes are being developed right now and you should monitor and participate in that development.
- Second, get a good consultant and assess your own GHG emissions. It is almost assured that your municipality and your business will have to develop an inventory of its GHG emissions, either as a baseline for regulation, or if you want to participate in the carbon market.
- For any new development you are considering or that you are permitting, consider quantifying the emissions associated with the project. Try to include both direct and indirect impacts if possible.
- Consider mitigation options for projects. For real property development, consider if the project can be modified to be as conservative as possible with energy use. Consider the application of LEED standards if that is possible.
- Assess a project's use of materials, construction practices, supply chain. Wal-Mart recently obtained a large amount of favorable press attention for its pilot project to require 30 manufacturers in seven product categories to report their energy use throughout their supply chain, including procurement, manufacturing and distribution.
- Use whatever safe harbors are available – are there local initiatives or local regulations that should be considered. For new development or operations modification, think about the carbon impact of the project.

In addition to minimizing your risk, the changing regulatory and litigation climate will present opportunities. For instance, consider the following:

- Assessments can be shields. If you are undertaking or requiring an assessment, make sure it is developed in such a way that you can use it as a base-line following the implementation of any new regulations.
- For real property development, consider mixed-use development as well as the impact of the transportation options that are available or could be integrated into your project.

- Consider the use of open space and ways to maximize its use. In Issaquah, Washington, a developer acquired thousands of acres of second growth forest located within 5 miles of a new 3,300 unit residential and commercial development and then transferred the development rights of the forest land to the property slated for development. This allowed the developer to claim credit for the conservation initiative on the forest land, while increasing the development potential of its other property.
- A new market for credits will be emerging; however, if you intend to participate in that market, make sure to develop credits with the highest market value.
- Consider green building/LEED certification rules and whether they would offer any bonuses in both new construction and in retrofitting.
- Investment opportunities already exist in alternative fuels and co-generation of energy.
- Sustainable development is a growth area.

The need to assess and mitigate GHG impacts from both new development and modification of operations has changed significantly over the last 18-24 months. The new regulatory and litigation climate presents business leaders with new risks, but also with new opportunities, if they are able to stay abreast of the changes and anticipate and take advantage of the opportunities presented by these changes.