



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

CENTER FOR THE STUDY OF NATURAL HAZARDS AND
DISASTERS

100 EUROPA DRIVE, SUITE 540
CAMPUS BOX 7581
CHAPEL HILL, NC 27517-7581

T 919-962-0344
F 919-445-9669
[HTTP://HAZARDSCENTER.UNC.EDU](http://hazardscenter.unc.edu)

RICK LUETTICH

Director

RICK_LUETTICH@UNC.EDU

GAVIN SMITH

Executive Director

GAVIN_SMITH@UNC.EDU

May 21, 2010

Nancy J. Sutley, Chair, Council on Environmental Quality
VIA Electronic Mail

RE: Comments on Draft NEPA Guidance on Consideration of the Effects of Climate
Change and Greenhouse Gas Emissions

Dear Ms. Sutley:

Thank you for the opportunity to comment on the Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions (“Draft Guidance”) issued on February 18, 2010. The Center for the Study of Natural Hazards and Disasters (Hazards Center) is a research center at the University of North Carolina at Chapel Hill focusing on the scientific phenomenology, socio-economic impacts, environmental effects, and policy considerations of natural hazards and disaster management in the United States and worldwide.

The following comments reflect the views of the Executive Director and Program Manager at the Hazards Center, working in concert with the Center for Law, Environment, Adaptation and Resources (CLEAR) at the University of North Carolina at Chapel Hill, under the directorship of Victor Flatt. These comments are informed by our long-standing (over 25 years) work in the field of natural hazards and disasters and their impacts on society, as well as our more recent participation in a workshop on the state of climate change adaptation under existing legal regimes sponsored by CLEAR, which focused, among other issues, on addressing the impacts of climate-affected natural hazards through our Nation’s existing regulatory framework.

These comments are primarily directed to Section III of the draft guidance dealing with the issues of climate change adaptation, and more specifically to the issue of the effects of climate change in terms of natural hazard events and their impacts on human society. The guidance notes that “climate change can affect the integrity of a development or structure by exposing it to a greater risk of floods, storm surges, or higher temperatures...” The guidance also makes reference to EPA statements that the “effects of climate change observed to date and projected to occur in the future include, but are not limited to, more frequent and intense heat waves, more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, ...”. We concur with these statements, based on past and ongoing research conducted through investigators at our Center and at other research universities and by studies conducted by multiple federal and state agencies, as well as statements issued by the Intergovernmental Panel on Climate Change (IPCC).

We support the CEQ's reiteration that NEPA requires agencies to consider how their actions will affect not only the current environment, but a future environment altered by the effects of climate, including increased frequency and intensity of many types of natural hazards. In addressing these increased hazards that will occur as a result of climate change through the NEPA process, we would like to point out that the existing regulatory framework has in place several mechanisms to confront the impacts of hazards on the human environment, and that a variety of tools and resources (including financial resources) are already widely used to assess the potential risks from natural hazards and to develop adaptation measures to mitigate those risks. There is a very strong nexus between mitigating the risks of natural hazard impacts and climate change adaptation measures at all levels of government.

Specifically, the Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288, as amended by P.L. 100-707) establishes the procedures for a Presidential Declaration of Disaster, including disasters emanating from natural hazard events, thereby providing for financial assistance from the federal government to state and local governments to alleviate suffering and damage which result from disasters. The Disaster Mitigation Act of 2000 amends the Stafford Act, reinforcing the importance of pre-disaster mitigation planning to reduce the Nation's disaster losses, and streamlining the administration of federal disaster relief and mitigation programs. To be eligible for disaster relief under the Stafford Act, tribal, state and local governments must adopt a hazard mitigation plan that is developed according to guidance established by the Federal Emergency Management Agency. While "climate change" per se is not a natural hazard specifically recognized in guidance material issued by FEMA, increases in severity and frequency of specific types of hazards such as flooding, drought, sea level rise, hurricanes, tropical storms, thunderstorms, winter storms, etc. are of relevance to provisions in the Act.

The Stafford and Disaster Mitigation Acts provide resources for tribes, states and local governments to plan for natural hazard events spurred by climate change, and thus should be considered as a tool in adaptation planning at these levels, when federal agencies are cooperating with states and tribes on adaptation. The pre- and post-disaster funding programs that are made available can be significant, and allow for both proactive (pre-event) and reactive (post-disaster) adoption of risk reduction strategies, including projects and policies. For example, 15 percent of disaster assistance funds received by a state can be used to engage in post-disaster mitigation efforts. Following large-scale disasters these funds can value hundreds of millions of dollars dedicated to reducing risk of damage from future hazard events.

Among the provisions for approval of a mitigation plan under the Disaster Mitigation Act is the inclusion of a risk assessment that identifies all the natural hazards to which a tribe, state or local community is subject, and that assesses the jurisdiction's vulnerability to that risk. The risk assessments prepared as part of the hazard mitigation planning process can provide a valuable source of information to agencies that are considering the effects of their actions in a future environment altered by the effects of climate change. The level of detail included in state and local mitigation plans can provide a more "localized" assessment of hazard risks, thereby adding a degree of specificity to project review under the NEPA process.

In addition, while the CEQ recognizes accessible and reliable data on climate change effects is limited and that NEPA requires only that agencies follow a “rule of reason” in determining what effects to consider, there currently exist many sources of reliable and scientific-based data regarding the potential impacts of climate change viz a viz natural hazards, including estimations of the extent of subsidence and inundation due to climate-induced sea level rise, tropical storm and hurricane impacts, riverine and coastal flooding, drought, and wildfire, among others. In particular, the National Oceanic and Atmospheric Administration is a forerunner in the development, analysis, assimilation and dissemination of much of the current data on climate change impacts, including natural hazard impacts, in the United States. Many other federal agencies, including the Federal Emergency Management Agency, the US Geological Survey, the US Army Corps of Engineers and others also play an important role in making climate change data available and accessible.

With the wealth of information available, it is important that federal agencies have ease of access to the types of information required to make informed, realistic decisions as specified under NEPA. We urge the CEQ to clarify its role in coordinating information on environments changed due to climate, including changes in natural hazard impacts, and we encourage the CEQ to consider serving as a clearinghouse to assist agencies in securing the information necessary to make informed decisions pursuant to NEPA. The Interagency Working Group is a good start at helping agencies coordinate ideas and knowledge, but it should be expanded to representatives of other agencies, such as those specifically tasked to address natural hazards, as well as expansion to states, tribes and local communities who have undertaken extensive, locally-specific risk assessments and vulnerability analyses. The CEQ could take the lead in collecting and coordinating information on climate altered environments, wherever it is produced, and thus provide a resource for government action at all levels. With this more developed information, federal agencies will then be able to have sufficient knowledge to plan their actions accordingly.

We appreciate your consideration of these comments.

Sincerely,

Gavin Smith, Ph.D, AICP
Executive Director
Center for the Study of Natural Hazards and Disasters
The University of North Carolina at Chapel Hill

Anna K. Schwab, JD, MRP
Program Manager
Center for the Study of Natural Hazards and Disasters
The University of North Carolina at Chapel Hill