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Technical Comments on February 18, 2010 Council on Environmental Quality Memorandum Presenting Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions

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by

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On February 18, 2010, the Council on Environmental Quality issued a memorandum titled "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions". The stated purpose of the memorandum is to "help explain how agencies of the Federal government should analyze the environmental effects of GHG emissions and climate change when they describe the environmental effects of a proposed agency action in accordance with Section 102 of NEPA and the CEQ Regulations for Implementing the Procedural Provisions of NEPA, 40 C.F.R. parts 1500-1508." These technical comments on the memorandum were prepared by staff of the National Council for Air and Stream Improvement, Inc.

The memorandum recommends 25,000 metric tons as a criterion for considering whether to include carbon emissions in a NEPA analysis. This threshold was selected by EPA for administrative reasons in context of the agency's Mandatory Reporting of Greenhouse Gases Final Rule and is not based on any statutes or scientific evidence. If the 25,000 ton criterion were to be overturned in court, it is conceivable that every NEPA action would need to consider GHG emissions and perhaps quantify them and evaluate mitigation alternatives. This would be an administrative burden of the first order. If the 25,000 ton criterion were to be upheld, agencies would need to devote scarce resources to determining whether or not proposed actions exceed the criterion.

The choice of which climate scenario to use for evaluation of possible impacts of future climate on ecosystems is a critical issue that is not addressed in the memorandum. Guidance provided by the USGCRP regarding climate scenarios is too general to be of utility at the regional and sub-regional scales of most NEPA analyses. That is, there is a gap between what is available and

what is needed to make an analysis. Moreover, agencies will need guidance regarding characterization and consideration of uncertainty in climate change projections.

The document recommends that agencies use the scoping process to set "reasonable spatial and temporal boundaries" for assessments. Yet, the memorandum provides no guidance on how to do so.

The CEQ recommends that agency analyses of direct effects "qualitatively discuss the link between such GHG emissions and climate change". It is unclear what a qualitative analysis would comprise or accomplish. Given that the atmosphere is well mixed, there is no reason to expect that a project's location would have any effect on the link between emissions and climate change. Thus, a single generic analysis should be sufficient for all projects.

The document makes many questionable assertions about indirect impacts of climate change and recommends that indirect impacts be considered in agency assessments. This invites speculation in NEPA analyses about potential impacts of climate change. The scientific basis for increasing storm intensity and other indirect effects is equivocal and controversial. For example, Knutson et al. (2010) show that data do not permit detection of any trends in tropical cyclones over recent decades, nor any relation to warming. Moreover, there is no sound scientific basis for downscaling models of indirect effects and incorporating them into project-level analyses.

We provide below responses to several questions asked in Section VI of the memorandum soliciting comment on land and resource management issues.

2. "What should be included in specific NEPA guidance for projects applicable to the federal land management agencies?"

> Federal land management agencies should consider natural disturbance regimes and predictable effects of management practices on sources and sinks of greenhouse gases. Agencies should explicitly consider the possibility that frequency and severity of natural disturbance (and associated emissions) will be higher under a no management alternative than under active management (USDA 2009).

3. "What should be included in specific NEPA guidance for land management planning applicable to the federal land management agencies?"

> We believe there are several issues related to carbon release and sequestration that should be considered in NEPA guidance applicable to federal land management issues. First, we reiterate the suggestion that, if agencies do assess GHG emissions and climate change issues for proposed land management actions, they should include emissions associated with no management and the natural disturbance regimes that would likely result. Second, the common suggestion that undisturbed forests "sequester" the most carbon is only true in the short term and if all other human actions are ignored (Sampson and Hair 1992, IPCC 2007, Marland and Schlamadinger 1997, Schlamadinger and Marland 1996). If trees are not harvested and used for lumber and other products, substitute products such as concrete or steel, which may have much higher CO2 emissions, will be used. This

product substitution issue should be considered in agency assessments. Similarly, much wood waste is used for fuel at wood products facilities, acting as a substitute for fossil fuels. The same applies to wood used directly as a biofuel by burning or as input to liquid biofuel creation. If timber harvest is severely constrained on federal lands in the USA, no net sequestration would occur because we would simply import more wood. Much of the carbon in wood used for construction is kept out of the atmosphere for 50 to 100+ years and when it becomes scrap it ends up in a landfill where it decays slowly. Many of these activities and product pools are located outside of federal lands, so the issue of boundaries arises. If carbon is only counted on a federal facility, then wood leaving the boundaries is an "emission" when in reality it is accomplishing product substitution and/or being removed from the atmosphere for long periods.

5. "How should uncertainties associated with climate change projections and species and ecosystem responses be addressed in protocols for assessing land management practices?"

CEQ's guidance should recognize that there are very large levels of uncertainty associated with climate change projections. The range of outputs of climate models is huge. Climate models vary even more in their predictions about any particular region. They differ in predictions of both temperature and precipitation, as well as in seasonal trends of each. This makes scenario uncertainty huge. With respect to ecosystem responses, many approaches have been proposed for predicting future extinction risks, but Botkin et al. (2007) have argued that these methods are in general either invalid for this purpose or untested. As a result, we encourage CEQ to recommend an approach that agencies should use for handling uncertainties in Environmental Impact Statements. That approach should include explicit acknowledgment of uncertainties and estimates of how they affect emission possibilities as well as climate change projections.

7. "Should CEQ provide guidance to agencies on determining whether GHG emissions are "significant" for NEPA purposes. At what level should GHG emissions be considered to have significant cumulative effects. In this context, commenters may wish to consider the Supreme Court decision in *Massachusetts v. EPA*, 549 U.S. 497, 524 (2007)."

It would be impossible to show that any single action, even a large power plant, has a detectable effect on climate. Therefore, in the context of the usual NEPA guidance, no actions on federal lands (nor any federal actions in general) would ever be likely to meet this criterion. Any guidance to agencies on determining whether GHG emissions are "significant" should include an approach for considering the large levels of uncertainty associated with climate change projections when making such determinations (see item 6 above).

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