CLIMATE CHANGE IN NATIONAL ENVIRONMENTAL POLICY ACT ANALYSIS

by

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Climate change may be the most important environmental challenge facing society today. Man's actions contributing to climate change and climate change's current and future impacts on our world have prompted action by governments to integrate climate change analyses into governmental planning and policies. The extent to which governments consider the impacts of climate change in policy decisions and in implementing projects will dictate the extent to which climate change and its consequences might be limited or avoided in the future. In the United States, the National Environmental Policy Act (NEPA)[1] is one of the mechanisms that require consideration of environmental factors in federal decision-making.

Consideration of greenhouse gases (GHGs) and climate change in NEPA analysis presents a unique challenge. For starters, the scope of climate change analysis is unlike any other resource studied under a NEPA investigation. What other resource study area encompasses all of the earth, including both poles? The differences are many. This journal[2] and a variety of other professional publications have produced articles on the complexities of analyzing climate change in NEPA document preparation. Even with the opinions of environmental experts, lawyers and academics, there are still unanswered questions on the appropriate level of analysis and determining when compliance has been achieved under NEPA.

The challenge of climate change analysis under NEPA is not new. After recognizing that Federal agencies needed assistance in determining the appropriate level of analysis for greenhouse gases and climate change in the NEPA context, the Council on Environmental Quality (CEQ) issued draft guidance in 2010. Another draft and just over seven years later, CEQ concluded its drafting process. In August of 2016, CEQ issued final guidance on greenhouse gas considerations in NEPA decisions titled, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*.[3] The stated goal of the guidance was to make the federal agencies' consideration of climate change impacts in NEPA documents as consistent as possible. Supporters of the guidance heralded it as long overdue. Critics of the guidance argued that the policy would make NEPA analyses even more complex and take even more time to address this broad and complex issue. The guidance required the consideration of potential "upstream" carbon emissions, making the analysis that much more complicated. The attempt by CEQ to provide some consistency, popular or not, was

[1] 42 U.S.C. §§ 4321-4347
[2] (1) Michael D. Smith (2008) "NEPA and Climate Change," Environmental Practice 10(2):75–77.
(2) Doug Huxley (2017) "A GHG management professional's take: CEQ's guidance for climate change and NEPA," Environmental Practice, 19:1, 56-62
[3] *Federal Register*, August 5, 2016. 81 FR 51866.

thwarted by the November 2016 presidential election and subsequent action by the new Administration. The CEQ's greenhouse gas NEPA guidance was rescinded in March 2017.[4]

If there was any benefit from the CEQ guidance, it is no longer available and the NEPA practitioner was moved back to square one on the issue. With this lack of clarity, an agency NEPA decision-maker is challenged to determine what constitutes a hard look at the climate change implications of a project decision. Inconsistency in the courts and across agencies on this issue reveals a weakness easily exploited by a project opponent. This situation is complicated by the plausible argument that climate change is "significant" in the NEPA context and any emission-producing federal agency action is a contributing factor and as such triggers the preparation of an Environmental Impact Statement (EIS) no matter what size the action.

Neither NEPA nor its implementing rules requires consideration of climate change in NEPA documentation, but it is not difficult to arrive at such a requirement. NEPA requires federal agencies to prepare an EIS "in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment."[5] The CEQ is charged with overseeing NEPA and ensures NEPA's purposes are met. Regulations created by CEQ, 40 CFR parts 1500-08, implement the directives and purpose of NEPA. CEQ's regulations require that federal agencies address all "reasonably foreseeable" environmental impacts of their proposed programs, projects, and regulations.[6] "Reasonably foreseeable" is defined in 40 CFR 1502.22 as "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." The best available science supports the conclusion that climate change, and adverse consequences thereof, are reasonably foreseeable and that it is "*extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century."[7] Subsequently, one can conclude that climate change impacts qualify as reasonably foreseeable effects that should be addressed in a project's environmental analysis to properly comply with NEPA and CEQ regulations.

There is, however, a certain amount of uncertainty when estimating a proposed project's effect on climate change and the level of effort needed when considering climate change within the NEPA context. This complexity has been acknowledged in

[4] *Federal Register*, March 5, 2017. 82 FR 16576
[5] 42 U.S.C. § 4332(2)(C)
[6] 40 C.F.R. § 1502.22
[7] IPCC, 2013: Summary for Policymakers. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Website: https://www.ipcc.ch/report/ar5/wg1/ Accessed January 4, 2018.

the nation's highest court. It was Chief Justice Roberts that noted in his dissenting opinion in *Massachusetts v. EPA*[8] that, when referring to being able to trace the effects of a specific action through the earth's atmosphere, "the connection is far too speculative to establish causation."

When considering an impact of a project under a NEPA analysis, the Supreme Court has stated that it requires a "reasonably close causal relationship between a change in the physical environment and the effect at issue. This requirement is like the familiar doctrine of proximate cause from tort law."[9] The Court went on to explain that "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect. Hence, under NEPA . . . the agency need not consider these effects…"

The NEPA practitioner can usually determine a cause-and-effect relationship for direct impacts but it becomes more challenging when determining reasonably foreseeable indirect effects, especially for downstream greenhouse gas emissions. In *Sierra Club v. Marsh*, the 1st Circuit Court stated that if indirect effects are anticipated then to judge how far the cause-effect sequence should be extended should include whether "one describe them `now' with sufficient specificity to make their consideration useful?[10]

An agency is given discretion to determine an appropriate level of analysis under NEPA using the rule of reason and in considering the causal relationship between project implementation and impact on the environment. Because the subject of climate change is on a global scale, the practicality of an analysis of climate change that is useful to the agency decision-maker is a high expectation. The 2016 CEQ Final Guidance recognized that inherent in NEPA and the CEQ regulations is a rule of reason which ensures that agencies are afforded the discretion, based on their expertise and experience, to determine whether and to what extent to prepare an analysis based on the availability of information, the usefulness of that information to the decision-making process and the public, and the extent of the anticipated environmental consequences.[11] The guidance went on to state that the concept of proportionality is grounded in the fundamental purpose of NEPA to concentrate on matters that are truly important to making a decision on the proposed action and, additionally, that when assessing the potential significance of the climate change impacts of their proposed actions, agencies should consider both context and intensity, as they do for all other

[8] Massachusetts v. EPA, 549 U.S. 497, 524 (2007)
[9] Department of Transportation v. Public Citizen, 541 U.S. 752 (2004)
[10] Sierra Club v. Marsh, 976 F.2d 763 (1st Cir. 1992)
[11] CEQ Memorandum, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. Aug. 1, 2016. https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf Accessed February 2, 2018.

impacts. In regards to climate change, it would seem that using the context of the whole of the earth's atmosphere would proportionately raise the threshold of intensity to a level that would exclude all but the largest of projects or programs. Without the concept of proportionality, agencies might also be expected to assess global deforestation for all actions that remove vegetation or to consider the health of the world's oceans for all actions that have storm water runoff.

The concept of proportionality is linked to the term "meaningful analysis" that is often used by CEQ and the courts in describing an agency's responsibility under NEPA to describe an effect of an action on a resource. In the case of climate change, only a few of the largest projects or programs would likely result in a measureable effect on the global climate. By far, the majority of agency actions would have no measureable effect on climate change. If the incremental effect of the majority of agency actions is so small as to have an immeasurable effect on climate change, how does that aid the agency decision-maker on that action?

To put the meaningful analysis into perspective, we can look at a recent agency action that had considerable implications related to GHG emissions. In 2010, the National Highway Traffic Safety Administration prepared an Environmental Impact Statement (EIS) to analyze and disclose the potential environmental impacts of the proposed model years 2012–2016 Corporate Average Fuel Economy standards for the total fleet of passenger and non-passenger automobiles. These standards were estimated to reduce 61 billion gallons of fuel usage and 654.7 million metric tons of CO2 emissions. In the EIS, there was a substantial discussion of GHGs and climate change that included modeling of the alternative scenarios that were being considered. In regards to global temperature change across the alternative scenarios the analysis concluded that for the year 2100, the reduction in temperature increase in relation to the No Action Alternative ranged from 0.013°F to 0.032°F. In other words, on a temporal scale of almost 100 years, the agency action has a potential effect on climate change that is measured in hundredths of a degree. To emphasize the large scale of this agency action it should be noted that the EIS indicates that 19.1 percent of total U.S. CO^2 emissions come from passenger cars and light trucks. Very, very few agency actions reach this scale in regards to potential effect on the world's climate. Even with this meaningful analysis, one could question the preciseness of the input data, the margin of error of the model, and the ability to predict anything 100 years into the future.

For better or for worse, agency NEPA decision-makers have some discretion on the matter. This deference has been recognized by the courts and is stated in CEQ's rules. Increasingly, federal agencies are including greenhouse gas analysis and climate change considerations into their NEPA documents. Some agencies include quantitative calculations (the number of tons of carbon associated with an action); some provide only qualitative analysis as a general rule; others still decline to include any analysis on

a project-level basis, on the assumption that no one action can produce measureable impacts on a global phenomenon. Case law is making at least some level of recognition of climate change a prudent action for agencies preparing defensible NEPA decisions. Consider that in the ten-year period from 1990 to 1999 there were three climate change-related court cases filed challenging agency NEPA decisions. In the most recent ten-year period (through 2017), there were 133.[12] Not all courts agree with the level of analysis sufficient to meet the NEPA standard when it comes to climate change. Neither NEPA nor CEQ's implementing regulations specifically require consideration of climate change in NEPA documentation. Some courts have recognized the lack of a standard on this subject and have been lenient towards agencies in their decisions.

Of particular relevance for this author is a case in the Fifth Circuit that suggests that the agency does not need to consider GHG impacts under NEPA. In the case *Sierra Club v. Federal Highway Administration*[13], the court stated that it "has not found any evidence that the defendants considered the impact of Segment E on greenhouse gas emissions. The plaintiffs have not, however, pointed to any law or regulation showing that defendants' failure to consider greenhouse gas emissions makes the FEIS inadequate, or makes the decision of the FHWA arbitrary or capricious. Because ... the defendants were not required to consider the effects of Segment E on greenhouse gas emissions, the court concludes that the defendants are entitled to summary judgment as to the plaintiffs' claims regarding consideration of air pollution." In the appeal, the Fifth Circuit affirmed saying that the district court had issued a "thorough opinion" but did not mention the subject of greenhouse gas or climate change.[14]

Cases from other circuits, specifically the Fourth and Sixth Circuits, suggest that agencies must at least engage in a qualitative discussion of the issue of climate change in their NEPA documents. In two cases from the Fourth Circuit, the court indicates that the agency must at least include a qualitative discussion of greenhouse gases. In *Audubon Naturalist Society v. U.S. Department of Transportation*[15], the court recognized that the agency "did consider these impacts," and that the agency "believed it was not useful to consider greenhouse gas emissions as part of the project-level planning and development process, since there are no national regulatory thresholds for greenhouse gas emissions or concentrations that have been established through law or regulation." The court concluded that the agency did not act arbitrarily or capriciously "in concluding that no particular mitigation is needed here for the supposed impacts of a single stretch of highway on the global problem of climate change."

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[12] Source: Climate Change Litigation Databases website. http://climatecasechart.com/ Accessed February 19, 2018.
[13] Sierra Club v. Federal Highway Administration. 715 F.Supp.2d 721, 7 41 (S.D. Tex. 2010).
[14] Sierra Club v. Federal Highway Administration, 435 Fed. Appx. 368 (Fifth Circuit 2011)
[15] Audubon Naturalist Society v. U.S. Department of Transportation, 524 F.Supp.2d 642 (D. Md. 2007).

In the second case, *North Carolina Alliance for Transportation Reform v. U.S. Department of Transportation*[16], the court cited *Audubon Naturalist Society* in deciding that the agency "clearly examined the issue of climate change and acknowledged their decision not to evaluate greenhouse gas emissions in the environmental impact statements." There, the court again noted that there were no national standards or EPA criteria or thresholds for greenhouse gas emissions from highway projects.

A similar result comes out of the Sixth Circuit where the plaintiffs alleged that the agency violated NEPA by failing to consider the effect the project would have on greenhouse gas emissions. The court ruled in favor of the agency finding that they had acknowledged that greenhouse gases contribute to climate change but could not "usefully evaluate greenhouse gas emissions on a project-specific basis because of the non-localized, global nature of potential climate impacts" and that defendants' approach to greenhouse gas emissions was not arbitrary and capricious.[17]

A recent case from the D.C. Circuit leans in the other direction. In *Sierra Club v Federal Energy Regulatory Commission* (FERC) where FERC was being asked to approve a natural gas pipeline the court stated that "FERC should have estimated the amount of power-plant carbon emissions that the pipelines will make possible."[18]

As indicated by the few citations mentioned here, cases from across the country can be found to support a wide range of positions on this issue. To add more inconsistency, an individual agency's position on the issue will be influenced by the agency's mission, so even across agencies there is variability. These challenges compound the difficulties facing the NEPA decision-maker in determining an adequate approach to the consideration of climate change in a NEPA analysis. Additionally, these challenges complicate the process and the implementation of NEPA.

To summarize, there is no national standard dictating the appropriate level of analysis for assessing climate change under NEPA. Climate change is, however, a reasonably foreseeable environmental impact if the project under consideration has associated greenhouse gas emissions. Consequently, climate change merits consideration in the NEPA analysis according to CEQ regulations. That said, however, the relatively minor greenhouse gas contribution from most NEPA actions creates at most only a tenuous causal connection to actual climate change effect from the individual action to the extent that the usefulness of the climate change analysis is dubious.

[16] N.C. Alliance for Transportation Reform v. U.S. Department of Transportation, 713 F.Supp.2d 491 (M.D. N.C. 2010).
[17] Coalition for Advancement of Regional Transportation. v. Federal Highway Administration, 576 F. App 477, 479 (6th Cir. 2014).
[18] Sierra Club, et al. v. FERC, No. 16-1329 (D.C. Circuit 2017)

NEPA is our umbrella environmental law that requires consideration of environmental factors in federal decision-making. Climate change is an environmental factor that should be considered in federal decision-making but there are, however, difficulties with inserting climate change into a NEPA analysis. This discussion has highlighted some of the complications with using NEPA as a tool to accomplish meaningful progress on climate change and the related challenges facing the NEPA decision-maker when trying to address climate change for a single action in a NEPA analysis. Part of the problem seems to come out of the vast difference in scale between a NEPA project decision and the global scope of climate change.

Trying to avoid or reverse the adverse effects of man-induced climate change using the National Environmental Policy Act is like trying to drive a nail with a screwdriver. It's not the best tool for the job. And we should remember that if we try to drive a nail with a screwdriver, we risk breaking the screwdriver.

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42 U.S. Code § 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts.

40 C.F.R. § 1502.22. Environmental Impact Statement. Incomplete or unavailable information. 51 FR 15625, Apr. 25, 1986.