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May 24, 2010

FILE NO.: 29142.050128

Via Electronic Mail

The Council on Environmental Quality
Attn: Ted Boling
722 Jackson Place, NW
Washington, DC 20503

Re: Comments of the Utility Water Act Group on CEQ National Environmental Policy Act (NEPA) Draft Guidance "Consideration of the Effects of Climate Change and Greenhouse Gas Emissions," 75 Fed. Reg. 8046 (Feb. 23, 2010)

Dear Sir:

Enclosed are written comments of the Utility Water Act Group on CEQ's proposed guidance on the consideration of the effects of climate change and greenhouse gas emissions under NEPA, 75 Fed. Reg. 8046 (Feb. 23, 2010).

Yours very truly,

A handwritten signature in black ink that reads "Ed Keith" followed by the initials "HBB".

Ed Keith
Chairman, 404 Committee Utility Water Act Group



**Comments of the Utility Water Act Group on
Draft NEPA Guidance on Consideration of the Effects of
Climate Change and Greenhouse Gas Emissions**

75 Fed. Reg. 8046 (Feb. 23, 2010)

May 24, 2010

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I. STATEMENT OF UWAG INTEREST

The Council on Environmental Quality (“CEQ”) has released for public comment draft guidance on when and how federal agencies may consider the impacts of proposed federal actions on global climate change, as well as the expected environmental effects from climate change that may be relevant to the design of the proposed federal action, as part of the environmental review process under the National Environmental Policy Act (“NEPA”). 75 Fed. Reg. 8046 (Feb. 23, 2010); Memorandum from Nancy H. Sutley, Chair, CEQ, to Heads of Federal Departments and Agencies, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions (Feb. 18, 2010) (hereinafter “Climate Change Memorandum”). The following comments are submitted on behalf of the Utility Water Act Group (“UWAG”).¹

¹ UWAG is a voluntary, *ad hoc*, non-profit, unincorporated group of 212 individual energy companies and three national trade associations of energy companies: the Edison Electric Institute (“EEI”), the National Rural Electric Cooperative Association, and the American Public Power Association. The individual energy companies operate power plants and other facilities that generate, transmit, and distribute electricity to residential, commercial, industrial, and institutional customers. EEI is the association of U.S. shareholder-owned energy companies, international affiliates, and industry associates. EEI has filed separate comments on the Climate Change Memorandum, and UWAG supports the EEI comments. The National Rural Electric Cooperative Association is the association of nonprofit energy cooperatives supplying central station service through generation, transmission, and distribution of electricity to rural areas of the United States. The American Public Power Association is the national trade association that represents publicly owned (municipal and state) energy utilities in 49 states representing 16 percent of the market. UWAG’s purpose is to participate on behalf of its members in EPA’s rulemakings under the CWA and in litigation arising from those rulemakings.

In the course of providing electricity, UWAG's members must engage in activities that sometimes involve federal agency action. For example, its members may perform work in wetlands and other waters of the United States and must obtain permits under Section 404 of the Clean Water Act ("CWA"), Section 10 of the Rivers and Harbors Act, or both. The issuance of an individual permit by the U.S. Army Corps of Engineers ("Corps") under either of these Acts is a federal action requiring review pursuant to NEPA. Accordingly, the implementation of NEPA, particularly in connection with permits issued pursuant to the regulatory program under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act, is important to UWAG members as well as to the public at large, whose health, safety, and general welfare depends on a cost-effective and reliable supply of electricity. Due to the nature of electric utility companies' operations, UWAG members can expect to have a continuing need for Section 404 permits and Section 10 permits, and each individual permit must undergo NEPA review.

UWAG has a longstanding interest in the Corps's regulatory program, including the Corps's NEPA regulations. UWAG has filed comments on numerous aspects of the Corps's regulatory program, including nationwide general permits, compensatory mitigation, and the definition of "fill." With respect to NEPA in particular, UWAG filed comments on the Corps's amendment to its implementing rules in 1984 and participated on behalf of the Corps in the referral of those rules for review by CEQ, which upheld the rules in 1987. 52 Fed. Reg. 22,517 (1987). In all of these regulatory activities, UWAG has sought a Corps regulatory program that is administratively workable as well as protective of the aquatic environment.

II. COMMENTS

A. CEQ Needs To Affirm Clearly That the Draft Memorandum Is Only Guidance.

CEQ characterizes the Climate Change Memorandum as “draft guidance,” as opposed to an amendment to CEQ’s NEPA regulations. Climate Change Memorandum at 1; 75 Fed. Reg. at 8046. The distinction is important because only legislative rules, promulgated in accordance with the procedures set forth in the Administrative Procedure Act, 5 U.S.C. §§ 500 *et seq.*, have the force and effect of law. *See, e.g., Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020-21 (D.C. Cir. 2000). Guidance documents, on the other hand, are not binding on federal agencies and do not modify or supersede existing legislative rules. *Id.* Importantly, guidance documents do not create rights or obligations, and legal consequences do not flow from such documents. *Id.* at 1022.

Although CEQ characterizes the Climate Change Memorandum as guidance, several aspects of the Memorandum may be viewed by federal agencies or members of the public as obligatory and binding on federal agencies -- the hallmarks of a legislative rule. For example, the Memorandum sets forth a “presumptive[] threshold for [the] discussion and disclosure of GHG emissions” related to a proposed federal action. Climate Change Memorandum at 3 n.2. This threshold, which is based on the 25,000 metric tons or more carbon-dioxide-equivalent (“CO₂e”) greenhouse gas (“GHG”) monitoring and reporting requirements for stationary sources, triggers other actions that federal agencies “should” take pursuant to NEPA, including the consideration of mitigation measures and reasonable alternatives to reduce action-related GHG emissions.² *Id.* at 5. By linking the occurrence of certain actions to a specific quantity of GHG

² As to the merits of this threshold, UWAG supports the views expressed in the EEI comments.

emissions and by suggesting that federal agencies should evaluate alternatives to reduce GHG emissions, the Memorandum may be construed to create enforceable legal obligations with respect to federal agencies' evaluation of GHG emissions.

In the interest of avoiding confusion and clarifying the role of the Climate Change Memorandum, CEQ needs to affirm clearly that the Memorandum is only guidance and not an amendment to CEQ's NEPA regulations. Furthermore, CEQ needs to affirm that, as a guidance document, the Memorandum does not bind federal agencies and does not modify or supersede CEQ's NEPA regulations or any agency's regulations implementing NEPA, which have been tailored for that agency's specific programs and duly adopted by the agency. *See, e.g.*, 40 C.F.R. Part 6 (2009) (U.S. Environmental Protection Agency ("EPA") NEPA implementing regulations); 18 C.F.R. Part 380 (2009) (Federal Energy Regulatory Commission NEPA implementing regulations); 7 C.F.R. Part 1794 (2009) (Rural Utilities Service NEPA implementing regulations); 10 C.F.R. Part 1021 (2009) (Department of Energy NEPA implementing regulations).

To that end, CEQ should conclude the Climate Change Memorandum by inserting the following statement:

This guidance represents CEQ's current thinking on this topic. It does not create or confer any rights on any person and is not binding on any agency or member of the public. This guidance is not intended to and does not supersede CEQ NEPA regulations or any agency regulations implementing NEPA.³

³ This statement is patterned after several elements in a suggested disclaimer for guidance documents set forth in the "Final Bulletin for Agency Good Guidance Practices" issued by the Office of Management and Budget ("OMB") in January 2007. Memorandum from Rob Portman, Director, OMB, to Heads of Executive Departments and Agencies, Issuance of OMB's "Final Bulletin for Agency Good Guidance Practices" (Jan. 18, 2007), *available at* www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf.

Such a statement would help affirm CEQ's intended use of the Memorandum to federal agencies and the public.

B. The Effects of a Project on Global Climate Change Are Beyond the Scope of NEPA and Thus Do Not Need To Be Considered in NEPA Documentation.

The Climate Change Memorandum indicates that federal agencies should undertake an “action-specific evaluation of GHG emissions” that includes a qualitative discussion of the link between GHG emissions and climate change. Climate Change Memorandum at 3. The Memorandum also recognizes, however, that it is difficult, if not impossible, to “link specific climatological changes, or the environmental impacts thereof, to [a] particular project or emissions” because climate change is “a global problem that results from global GHG emissions.” *Id.* at 2, 3. Because there can be no causal link between a particular federal action and the effects of global climate change, those effects are not cognizable under NEPA, and federal agencies are not required to consider them during the NEPA process.

There are two types of effects produced by a federal action that are cognizable under NEPA: direct effects and indirect effects. “Direct effects” are “caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Climate change effects clearly do not fall within the definition of “direct effects” because they are global in nature, and thus, they do not occur at the same time or place as the federal action.

“Indirect effects,” on the other hand, are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” *Id.* § 1508.8(b). The Supreme Court has stated that, in order for an indirect effect to be “caused by the action,” there must be “a reasonably close causal relationship” akin to proximate causation.⁴ *Dep't of Transp. v. Public*

⁴ Moreover, the federal agency itself, and not another actor, must have authorized the action. *Public Citizen*, 541 U.S. at 769-70.

Citizen, 541 U.S. 752, 767 (2004). A single project is not the proximate cause, or even the “but for” cause, of global climate change or its effects. A specific project is not the “but for” cause of climate change or its effects because, even if the project was not built, the phenomenon of climate change would nevertheless occur. Moreover, a specific project is certainly not the proximate cause of climate change or its impacts because, as CEQ seems to recognize, there are multiple links between a specific project and the impacts of climate change, which have not been isolated or established. *See, e.g.*, “Comments of the Utility Air Regulatory Group on Interagency Cooperation Under the Endangered Species Act, 74 Fed. Reg. 20,421 (May 4, 2009),” at 9-21 (Aug. 3, 2009) (Attachment A to these Comments). Thus, when a federal action consists of a project or a portion thereof, climate change does not qualify as an indirect effect cognizable under NEPA.

Despite the fact that UWAG does not believe that the effects of climate change are cognizable under NEPA, it nevertheless has commented on issues raised by the Climate Change Memorandum with respect to the evaluation of climate change effects in the following sections.

C. The Meaning of “Indirect GHG Emissions” Needs Further Explanation.

The presumptive threshold for the evaluation and disclosure of GHG emissions set forth in the Climate Change Memorandum is based on the level of GHGs *directly* emitted from a proposed federal action (*i.e.*, 25,000 metric tons or more of *direct* CO₂e GHG emissions per year). Climate Change Memorandum at 3. Though this threshold is based on direct GHG emissions, once the threshold is met or exceeded, the Memorandum encourages federal agencies to consider both direct *and indirect* GHG emissions from the proposed federal action. *Id.* at 5. The Memorandum provides guidance regarding the scope of an agency’s assessment of direct emissions, indicating that an agency should look at “the consequences of actions over which it

has control or authority.” *Id.* at 5 (citing *Public Citizen*, 541 U.S. at 768). The Memorandum does not provide similar guidance, however, for indirect emissions.

UWAG believes that it may be helpful for CEQ to provide guidance regarding the meaning of “indirect GHG emissions” and the appropriate scope of a federal agency’s evaluation of such emissions. UWAG suggests that CEQ consider adopting the definition of “indirect emissions” from the EPA’s regulations implementing the general conformity provisions of the Clean Air Act, with one modification to achieve conformance with NEPA’s requirements, for this purpose. *See* 40 C.F.R. § 93.152. Strictly speaking, the general conformity regulations apply only to emissions of criteria pollutants from federal action in areas designated non-attainment for those pollutants. Nevertheless, the general conformity regulations provide a serviceable definition of indirect air emissions that has been applied by federal agencies to their actions for many years.

The general conformity regulations define “indirect emissions” as those emissions:

(1) [t]hat are caused or initiated by the Federal action...but occur at a different time or place as the action; (2) [t]hat are reasonably foreseeable; (3) [t]hat the agency can practically control; and (4) [f]or which the agency has continuing program responsibility.

Revisions to the General Conformity Regulations, 75 Fed. Reg. 17,254, 17,273 (Apr. 5, 2010).

Under the Clean Air Act’s general conformity program, emissions are “caused by” a federal action if the emissions “would not otherwise occur in the absence of the Federal action.” 40 C.F.R. § 93.152 (definition of “caused by”). Because this type of “but for” causation is broader than the proximate cause standard under NEPA, the general conformity definition should be

modified to add the term “proximate” to the causation standard.⁵ *See Public Citizen*, 541 U.S. at 767, 772. In addition, consistent with CEQ’s definition of “indirect effects” for purposes of NEPA, at 40 C.F.R. section 1508.8(b), application of the modified air conformity definition is practically limited by the federal “control” and “continuing program responsibility” requirement in the definition. *Id.* at 769-70, 772-73. The air conformity definition is well known and understood by federal agencies, and, for this reason, it could be applied in the NEPA context by federal agencies with relative ease. Federal agencies have been applying this definition successfully to federal actions since 1993, and this experience should make it straightforward for the agencies to define and evaluate the indirect emissions of federal actions in the new context of carbon dioxide (“CO₂”) or CO₂e emissions.

D. CEQ Can Establish a “Significant” Level of GHG Emissions Only Through Rulemaking, and None is Warranted.

The Climate Change Memorandum notes that CEQ does not propose the 25,000 metric ton threshold as an indicator of the level of GHG emissions that are “significant” for NEPA purposes, because “[e]valuation of significance under NEPA is done by the action agency based on the categorization of actions in agency NEPA procedures and action-specific analysis of the context and intensity of the environmental impacts.” Climate Change Memorandum at 3. Even though CEQ appears to recognize that significance depends on an “action-specific analysis,” it nevertheless requests comment on whether it should provide guidance regarding the individual and/or cumulative level of GHG emissions that should be considered “significant.” *Id.* at 12.

⁵ By making this one modification, the definition of “indirect emissions” under the Clean Air Act’s general conformity regulations can be harmonized with the definition of “indirect effects” under NEPA, and the agency’s evaluation of indirect air emissions also can serve as its analysis of the indirect effects of its action on air quality. *See Public Citizen*, 541 U.S. at 767, 772.

UWAG urges CEQ not to establish a level of GHG emissions that are per se “significant,” thus necessitating the preparation of an environmental impact statement (“EIS”) under NEPA. As discussed below, determining the significance of a proposed federal action based solely on the GHG emissions from that action runs afoul of the multi-factor approach to determining significance set forth in CEQ’s NEPA regulations and would require notice-and-comment rulemaking consistent with the standards of the Administrative Procedure Act. Moreover, requiring the preparation of an EIS every time GHG emissions exceed a certain level could be a waste of scarce federal resources that would not meaningfully inform federal decisionmaking or the public, because GHG emissions from a proposed federal action will rarely, if ever, meaningfully contribute to the global phenomenon of climate change. *See id.* at 3 (noting that “[m]any agency NEPA analyses to date have found that GHG emissions from an individual agency action have small potential effects,” and that “[e]missions from many proposed Federal actions would not typically be expected to produce an environmental effect that would trigger or otherwise require a detailed discussion in an EIS”).

CEQ’s NEPA regulations set forth criteria for assessing the significance of the effects of a proposed federal action. 40 C.F.R. § 1508.27. Pursuant to the regulations, whether or not an effect “significantly” impacts the quality of the human environment requires consideration of “context” and “intensity.” *Id.* Both of these factors, in turn, involve consideration of numerous circumstances and factors. “Context” requires that the significance of an action be analyzed in several contexts, such as society as a whole, the affected region, the affected interests, and the locality. *Id.* The regulation states, however, that “in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than the world as a whole.” *Id.*

Similarly, “intensity,” which refers to the “severity of impact,” requires the evaluation of ten separate factors, including the beneficial and adverse impacts of an action; the degree to which the action affects public health or safety; the unique characteristics of the geographic area; the degree to which the effects on the quality of the human environment are likely to be highly controversial; the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks; the degree to which the action may establish a precedent for future actions; whether the cumulative effects of the proposed action are significant; the degree to which the action may adversely affect significant scientific, cultural, or historical resources; the degree to which the action may adversely affect threatened and endangered species; and whether the action threatens a violation of law imposed for the protection of the environment. *Id.*

As this definition clearly illustrates, the determination of “significance” under CEQ’s NEPA regulations focuses generally on local impacts for site-specific projects and depends on a multitude of factors. If CEQ were to establish a level of GHG emissions that is per se “significant,” the determination of significance for individual projects would be based on global effects, rather than local or regional impacts, contrary to the existing definition of “context.” Equally important, the multi-factor approach used to determine “intensity” would no longer apply to federal actions with GHG emissions that exceed the significance threshold. For those actions, the sole factor determining significance would be the level of GHG emissions, and the criteria for assessing the context and intensity of the action would be irrelevant. Because this runs afoul of the regulatory definition of “significantly,” CEQ can implement this approach only by amending the definition of “significantly” through a rulemaking completed in accordance with the Administrative Procedure Act. Thus, it is neither appropriate nor permissible to

establish a level of direct or cumulative GHG emissions that is “significant” through a guidance document such as the Climate Change Memorandum.

Furthermore, it is not practical to require federal agencies to prepare an EIS for every action with GHG emissions above a designated level because the effects of GHG emissions from individual federal actions are “currently beyond the scope of existing science to identify”⁶ and cannot be meaningfully downscaled and assessed at the local or regional level,⁷ making any such threshold arbitrary. Moreover, recognizing these limitations, conservative estimates of the effects of emissions even from sources with relatively large emissions -- many times greater than CEQ’s proposed 25,000 metric ton threshold for disclosure and discussion of GHG emissions -- are minuscule in comparison with worldwide emissions and will rarely, if ever, be of actual significance to global climate change.⁸

Because GHG emissions from federal actions will have an extremely limited impact on the global phenomenon of climate change, a detailed analysis of these impacts will not likely inform an agency’s decisionmaking process in a meaningful way. As CEQ acknowledges, NEPA analyses are governed by a “rule of reason,” which “ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decisionmaking process.” Climate Change Memorandum at 4. If CEQ

⁶ Memorandum from Mark D. Myers, Director, U.S. Geological Survey, The Challenges of Linking Carbon Emissions, Atmospheric Greenhouse Gas Concentrations, Global Warming, and Consequential Impacts (May 14, 2008); Memorandum from H. Dale Hall, Director, U.S. Fish and Wildlife Service, Expectations for Consultation on Actions that Would Emit Greenhouse Gases (May 14, 2008).

⁷ See Section F herein.

⁸ Letter from Robert J. Myers, Principal Deputy Assistant Administrator of U.S. EPA Office of Air and Radiation, to H. Dale Hall, Director of U.S. Fish and Wildlife Service, and James Lecky, Director of the National Marine Fisheries Service Office of Protected Resources, at 5-6 (Oct. 3, 2008).

established a level of significance for GHG emissions, it would be ignoring this rule of reason by requiring federal agencies to expend valuable resources on detailed analyses of impacts with potentially little new information of relevance to this global phenomenon. The determination of whether or not GHG emissions are significant, and thus require the preparation of an EIS, should remain with the federal agencies, subject to the multi-factor criteria set forth in CEQ's NEPA regulations.

E. CEQ Must Recognize Regulatory Limits on the Alternatives Analysis.

CEQ proposes that, when a federal action meets or exceeds the 25,000 metric ton threshold for GHG emissions, the agency undertaking the action should discuss and compare “reasonable alternatives to reduce action-related GHG emissions.” Climate Change Memorandum at 5; *id.* at 3 (“In the agency’s analysis of direct effects, it would be appropriate to...discuss measures to reduce GHG emissions, including consideration of reasonable alternatives.”). CEQ identifies several alternatives that “may be considered for their ability to reduce or mitigate GHG emissions,” including “enhanced energy efficiency, lower GHG-emitting technology, renewable energy, planning for carbon capture and sequestration, and capturing or beneficially using fugitive methane emissions.” *Id.* at 6.

As explained above, the GHG emissions from a single project are not the proximate cause of any effects of global climate change, and, as a result, those effects do not fall within the definition of “indirect effects” and are not cognizable under NEPA. If agencies do not have to evaluate the climate change effects resulting from a project’s GHG emissions, it follows that agencies do not have to evaluate alternatives that are designed solely to reduce GHG emissions. Because the level of GHG emissions from a project has no cognizable effect on global climate change, agencies need not evaluate alternatives to reduce the level of those emissions, including the alternatives identified by CEQ.

In any event, although the consideration of one or more of the alternatives identified by CEQ may be appropriate in certain circumstances, CEQ should clarify that the consideration of these alternatives is not appropriate or necessary in all circumstances. CEQ's NEPA regulations, which impose substantive limitations on the scope of alternatives that an agency must consider, govern the selection of alternatives for analysis in NEPA documentation. Federal agencies must consider only those alternatives to the agency action at issue that are "reasonable," 40 C.F.R. § 1502.14, and that are consistent with the "underlying purpose and need to which the agency is responding,"⁹ *id.* § 1502.13. If an alternative is not consistent with the purpose of the proposed federal action and otherwise "reasonable," an agency is not required to consider it in NEPA documentation. *See, e.g., Citizens Against Burlington v. Busey*, 938 F.2d 190, 195-96 (D.C. Cir. 1991). Moreover, an agency need not consider an alternative that is already an integral part of a project. *Env'tl. Defense Fund, Inc. v. Costle*, 657 F.2d 275, 297-98 (D.C. Cir. 1981).

The limits on the determination of "reasonable alternatives" stemming from the project's purpose may be illustrated by an example. The United States Department of Energy ("DOE"), pursuant to the federal Clean Coal Power Initiative, may provide financial assistance and/or loan guarantees to support projects that accelerate the commercialization of clean coal technologies that achieve greater efficiencies, environmental performance, and cost-competitiveness. If DOE was contemplating providing such assistance for the construction and operation of an integrated gasification combined cycle ("IGCC") electric power generating facility with carbon capture and sequestration technology, DOE would not need to consider solar, wind, or other types of renewable energy as alternatives to the project in NEPA documentation, because those types of

⁹ These are the standards for determining the range of alternatives that should be evaluated in an EIS. This range of alternatives may be circumscribed in an environmental assessment, which is intended to be a concise public document. 40 C.F.R. § 1508.9.

energy do not satisfy the project purpose to demonstrate clean coal technology and thus are not reasonable alternatives.

Moreover, if methods for enhancing the energy efficiency of the IGCC plant were considered and incorporated into the design of the plant, DOE would not be required to consider energy efficiency measures as a separate alternative, because they already are part of the proposed action. Similarly, in many state proceedings on certificates of public convenience and necessity, energy efficiency and demand side management are already taken into account when determining the need for power, and a new plant is authorized only if a need for power is justified after adjusting for load reduction programs. Under such circumstances, and in order to reduce duplication with state procedures,¹⁰ federal agencies need not prepare a separate evaluation of measures that have already been considered by the state and applicant in determining the purpose and need or design of the proposed project.

CEQ should affirm the limitations placed on the alternatives analysis by its own NEPA regulations, and should clarify that the alternatives identified in the Climate Change Memorandum are merely suggestions for alternatives to GHG-emitting actions that may be considered if they are reasonable in light of the purpose of the action and other technical and economic factors. Furthermore, CEQ should acknowledge that, in certain circumstances, methods for enhancing energy efficiency and demand side management will be considered in determining the purpose and need for the project and/or incorporated into the proposed action itself, and that, in such cases, consideration of these methods as a separate alternative to the project is not necessary.

¹⁰ See 40 C.F.R. § 1506.2(c).

F. Analyses of Climate Change Effects at the Local Level Are Speculative.

The Climate Change Memorandum suggests that, even if a federal action does not produce GHG emissions, federal agencies also should analyze those aspects of the local or regional environment that are affected by both projected effects of climate change and the proposed federal action. Climate Change Memorandum at 7. Thus, for example, the NEPA documentation for a proposed federal action that requires the use of significant quantities of water may include a more detailed analysis of changes in water availability due to climate change. *Id.*

As CEQ acknowledges in the Climate Change Memorandum, the ability of federal agencies to prepare a meaningful and non-speculative analysis of climate change effects on such an action- and resource-specific level depends on the availability of models to accurately downscale the existing global climate models to the regional, local, or project level. *Id.* at 8. At present, there are few, if any, downscaling models that are sufficiently accurate and robust to make useful predictions about the effects of climate change on local or regional resources, including effects on water availability, at the watershed level or at a specific project location.¹¹

¹¹ There are basically two types of downscaling strategies: dynamical downscaling and statistical downscaling. U.S. Climate Change Science Program, *Climate Models: An Assessment of Strengths and Limitations*, at 5 (July 2008) (hereinafter “Climate Models”). Dynamical downscaling strategies, which attempt to actually model regional processes, are dependent on the sea-surface and atmospheric boundary conditions provided by global climate models, but “their value is limited by the uncertainties in information supplied by global models.” *Id.* To overcome this uncertainty, multi-model ensembles “must be performed,” but due to the cost and complexity of such multi-model exercises, “[r]elatively few such multi-model dynamic downscaling studies have been performed to date.” *Id.* At present, regional climate models have performed well only “for domains roughly the size of the United States” and all dynamic downscaling is usually limited in duration to “only months to a few years” with numerous sources of uncertainty and error. *Id.* at 32-33.

Statistical downscaling, on the other hand, does not attempt to model regional processes. *Id.* at 36. Rather, as a statistical manipulation of data produced by global climate models, statistical downscaling is “highly dependent on the accuracy of regional temperature, humidity,

Thus, until accurate and well-tested downscaling models exist, any analysis of the regional and local effects of climate change on water resources, among other environmental resources, would be unduly speculative. Federal agencies should not consider speculative effects under NEPA. *See, e.g., City of Riverview v. Surface Transp. Bd.*, 398 F.3d 434 (6th Cir. 2005). The consideration of such effects would not serve the purpose of NEPA, which is to provide federal agencies with useful information regarding the effects of their proposed actions and to ensure that agencies take account of those effects as part of the decisionmaking process. Because an analysis of the regional and local effects of climate change on water resources would be speculative, it would not assist federal agencies in making informed decisions, and it therefore would be a misuse of federal resources to require such an analysis. Thus, CEQ should caution agencies against investing time and resources in modeling exercises until downscaling models significantly improve in terms of accuracy.

III. CONCLUSION

UWAG appreciates the opportunity to comment on CEQ's proposed guidance on the consideration of the effects of climate change and GHG emissions in NEPA documentation and asks that CEQ make the clarifications suggested in these comments.

and circulation patterns produced by their parent global models,” but the global climate models are usually too coarse-grained to produce accurate regional data and, in any event, do not simulate all regional processes influencing the phenomenon being studied. *Id.* at 5, 36. Moreover, the global models themselves are susceptible to large uncertainties, even at the global scale. In addition to the substantial uncertainties about the cooling effects of man-made aerosols and clouds, the global climate models have experienced substantial difficulty in predicting precipitation, a key impact in estimating water availability. *Id.* at 3. As summarized in *Climate Models*, “[c]limate model simulation of precipitation has improved over time but is still problematic. Correlation between models and observations is 50 to 60% for seasonal means on scales of a few hundred kilometers.” *Id.*

Given the uncertainties associated with downscaling models, it would be highly speculative to attempt to predict climate change effects over long time horizons at a regional or local scale.

ATTACHMENT A

COMMENTS OF THE UTILITY AIR REGULATORY GROUP

on

**INTERAGENCY COOPERATION UNDER THE
ENDANGERED SPECIES ACT**

74 Fed. Reg. 20421 (May 4, 2009)

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August 3, 2009

**COMMENTS ON THE UTILITY AIR REGULATORY GROUP ON
INTERAGENCY COOPERATION UNDER THE ENDANGERED SPECIES ACT
74 Fed. Reg. 20421 (May 4, 2009)**

On May 4, 2009, the U.S. Fish and Wildlife Service (“FWS”) and the National Marine Fisheries Service (“NMFS”) (collectively, the “Services”) withdrew regulations issued by the Services on December 16, 2008, entitled “Interagency Cooperation Under the Endangered Species Act” (the “2008 Section 7 Regulations”), and reinstated the regulations under Section 7 of the Endangered Species Act (“ESA” or “Act”) as they had existed prior to the effective date of the 2008 Section 7 Regulations. 74 Fed. Reg. 20421. Congress gave the Services the authority to withdraw the 2008 Section 7 Regulations “without regard to any provision of statute or regulation that establishes a requirement for such withdrawal.”¹ Omnibus Appropriations Act, Pub. L. No. 111-8, § 429(a)(1) (March 11, 2009).

Although the Services decided to withdraw the 2008 Section 7 Regulations on the basis of concern about the process used to develop those regulations, the Services have not foreclosed making changes to the section 7 regulations in the future. 74 Fed. Reg. at 20422. The Services have agreed “that a thoughtful, in-depth, and measured review would be beneficial before a determination is made regarding potential changes to the section 7 consultation regulations,” and to that end, the Services have requested public input on “potential options and improvements to the section 7 regulations that may be appropriate.” *Id.* The Services have specifically asked for

¹ The Omnibus Appropriations Act also gave FWS the authority to withdraw its final Special Rule for the Polar Bear, 73 Fed. Reg. 76249 (Dec. 16, 2008) (the “4(d) Rule”). FWS decided, however, not to withdraw this rule. UARG supports FWS’s decision not to withdraw the 4(d) Rule and notes that the reasons underlying the 4(d) Rule also support the conclusion, reached by the Solicitor of the Department of the Interior (discussed *infra*), that consultation under section 7 of the Act is not required to address individual sources of greenhouse gas (“GHG”) emissions and the projected effects of global climate change on listed species.

comment on a wide variety of issues, including the relationship between section 7 consultation and “consideration of effects related to global climate change.” *Id.* It is this specific issue that the Utility Air Regulatory Group (“UARG”) will address in these comments.

UARG is a voluntary, nonprofit group of electric generating companies and organizations and five national trade associations. UARG’s purpose is to participate collectively on behalf of its members in agency rulemakings and other regulatory proceedings under the Clean Air Act and other environmental statutes that affect the interests of electric generators with respect to air emissions, and in litigation arising from those proceedings.

Although UARG most often comments on matters arising under the Clean Air Act, the issues presented by consultation under section 7 of the ESA are relevant to UARG in light of the FWS’s decision last year to list the polar bear as a threatened species under the ESA due to the Services’ conclusions regarding projected effects of loss of sea ice on the polar bear. 73 Fed. Reg. 28212 (May 15, 2008). Listings such as that of the polar bear that are based, at least in part, on effects allegedly attributable to global climate change (*e.g.*, increased air or water temperature, increased drought, sea level rise, or acidification that may result in loss or impairment of habitat) have the potential to give rise to issues in Clean Air Act and related proceedings that may impact the electric generating industry.

UARG wholeheartedly agrees with Secretary of the Interior Ken Salazar that “the [ESA] is not the proper mechanism for controlling our nation’s carbon emissions.” DOI News Release (May 8, 2009), available at <http://www.fws.gov/news/NewsReleases/showNews.cfm?newsid=20FB90B6-A188-DB01-04788E0892D91701>. As the Secretary noted in connection with his decision to retain the 4(d) Rule, it is far preferable for Congress to enact “a comprehensive energy and climate strategy that

curbs climate change and its impacts – including the loss of sea ice.” *Id.* Efforts in this regard are well underway, and it is not necessary for the Services to address this issue through the ESA, which in any event is not a “proper mechanism” to do so. The U.S. House of Representatives recently passed the American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong., and the Senate is currently considering the bill. This legislation would provide the type of comprehensive energy and climate strategy referenced by the Secretary. Moreover, even if Congress does not enact comprehensive legislation in this Congress, the U.S. Environmental Protection Agency (“EPA”) has already begun to explore the possibility of regulating GHG emissions under the Clean Air Act. *See, e.g.*, Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18886 (April 24, 2009); Advance Notice of Proposed Rulemaking Regarding Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44354 (July 30, 2008). Thus, both Congress and EPA are already addressing the issue of GHG emissions and global climate change in the manner that Secretary Salazar has stated is preferable. FWS, Polar Bear 4(d) rule – Q’s and A’s, at 2, available at <http://www.fws.gov/home/feature/2009/pdf/QandApolarbear4drule.pdf>.

Indeed, as discussed in further detail below, the ESA does not provide the Services with authority to address GHG emissions from individual sources because those emissions do not fall within the Act’s jurisdiction. As Secretary Salazar noted recently in his decision to retain the 4(d) Rule, a “direct ‘connect the dots’ standard is required under the Act and court rulings,” and “[i]t is currently not possible to directly link the emission of greenhouse gases from a specific power plant, etc. to effects on specific bears or bear populations.” *Id.* Although it is not legally necessary for the Services to do so, they should reaffirm in any revisions they may make to the

section 7 regulations their established conclusion that the ESA’s consultation process does not apply to individual sources of GHG emissions.

I. Background on the ESA and the Section 7 Consultation Process

Under section 7, each federal agency (the “action agency”) is responsible for ensuring, in consultation with the appropriate Service, that any action it authorizes, funds, or carries out is not likely to jeopardize any endangered or threatened species or result in the destruction or adverse modification of the critical habitat of any such species. 16 U.S.C. § 1536(a)(2). The ESA does not define “consultation” or when the obligation to engage in formal consultation is triggered. That process is instead established by regulations promulgated by the Services. *See Babbitt v. Sweet Home Chapter of Communities for a Greater Ore.*, 515 U.S. 687, 708 (1995) (in the Act, Congress delegated broad administrative and interpretive power to the Secretary to define terms).²

The existing section 7 regulations set up a tiered process for consultation: (1) the action agency can make a unilateral determination that the proposed action will have *no effect* on an ESA-listed species or its critical habitat, in which case there is no consultation; or (2) if the action agency determines that the proposed action *may affect* a listed species or critical habitat, in which case either formal or informal consultation is required. **Informal consultation** is required for federal actions that are *not likely to adversely affect*, a listed species or critical

² As the Court stated in *Sweet Home* when it sustained the FWS’s regulatory definition of “harm”:

When it enacted the ESA, Congress delegated broad administrative and interpretative power to the Secretary. *See* 16 U.S.C. 1533, 1540(f). . . . The proper interpretation of a term such as “harm” involves a complex policy choice. When Congress has entrusted the Secretary with broad discretion, we are especially reluctant to substitute our views of wise policy for his. *See Chevron*, 467 U.S. at 865-66.

Sweet Home, 515 U.S. at 708.

habitat, and no formal consultation is necessary if the Service, through the informal consultation process, concurs with the action agency in the “not likely to adversely affect” determination.

Formal consultation is required for federal actions considered *likely to adversely affect* listed species or habitat and concludes with the Service’s issuance of a Biological Opinion and an incidental take statement, if appropriate. *See* 50 C.F.R. §§ 402.13(a), 402.14(a), (b).

The ESA section 7 consultation provisions thus focus on the effects of a particular federal action. Consultation is required only for proposed federal actions that “may affect” a listed species, with formal consultation being required for those actions that are considered “likely to adversely affect” a listed species or habitat³ and informal consultation being required for those actions that are considered “not likely to adversely affect” a listed species or habitat. The determination whether formal consultation is triggered requires an examination of whether the direct and indirect effects of the agency action reach the regulatory threshold of “may adversely affect.” *Id.* § 402.02. The Services further define “indirect effects” to be “[1] those that are caused by the proposed action and are later in time, but [2] still are reasonably certain to occur.” *Id.* (definition of “effects of the action”); *see id.* § 402.14(g), (h) (consideration of “effects of action” in rendering a biological opinion). This is a two-part test and both parts must be met for the definition to apply.

II. The Services Should Reaffirm Previous Determinations Concerning What Constitutes “Indirect Effects” and When Consultation Is Required.

Although the definition of “effects of the action” in the current section 7 regulations establishes that indirect effects are those that are “later in time,” “caused by” the action under consultation, and “reasonably certain to occur,” the regulations do not explain what is “caused

³ The Supreme Court has held that “formal consultation” is required only if “an agency determines that action it proposes to take may adversely affect a listed species.” *Bennett v. Spear*, 520 U.S. 154, 158 (1997).

by” a federal action or offer guidance as to the documentation needed to establish the “reasonably certain to occur” standard. This lack of clarity has led to confusion about the scope of “indirect effects,” and in any revisions to the section 7 regulations that the Services decide to make, it would be helpful for the Services to reaffirm that individual GHG sources cannot meet either the “but for” or “proximate” cause standards that must be met before a federal agency has a basis for determining that a proposed federal action “may affect” a listed species and that consultation is required.

On October 3, 2008, the Solicitor of the Department of the Interior issued an opinion entitled “Guidance on the Applicability of the Endangered Species Act’s Consultation Requirements to Proposed Actions Involving the Emission of Greenhouse Gases” (“Solicitor’s Opinion”), which concludes “that where the effects at issue result from climate change potentially induced by GHGs, a proposed action that will involve the emission of GHG[s] cannot pass the ‘may affect’ test, and is not subject to consultation under the ESA and its implementing regulations.” Solicitor’s Opinion at 2, available at <http://www.doi.gov/solicitor/opinions.html> (see document M37017). In reaching this conclusion, the Solicitor relies on two cases that recognize the “need for a causal connection between the proposed agency action and a specific impact to a specific species or critical habitat.” *Id.* at 6 n.7 (citing *Nat’l Wildlife Fed’n v. NMFS*, 524 F.3d 917 (9th Cir. 2008), and *Arizona Cattle Growers Ass’n v. FWS*, 273 F.3d 1229 (9th Cir. 2001)).

In determining that GHG emissions from a single source cannot meet the “may affect” test, the Solicitor specifically references a letter from EPA that sought confirmation by the

Services⁴ of EPA's determination that the issuance of federal permits under the Clean Air Act for activities that emit GHGs in amounts equal to or less than those analyzed in EPA's letter do not require consultation under section 7. EPA wrote the letter to "address the remote potential risks that public commenters suggest GHG emissions from an individual source could present for certain listed species." EPA Letter at 1. In determining that consultation under the ESA is "not required to address the possible impacts of the GHG emissions from the permit activities pending before the EPA," EPA relied on three sources: (1) a memorandum from the Director of the U.S. Geological Survey to the Director of FWS and the Solicitor of DOI;⁵ (2) the preamble to the final rule listing the polar bear as a threatened species; and (3) the Solicitor's Opinion. The Solicitor of DOI confirmed EPA's conclusion in the Solicitor's Opinion, as did NMFS in a letter from the Director of the Office of Protected Resources to EPA. Letter from James Lecky, Director of the Office of Protected Resources, NMFS, to Robert Meyers, Principal Deputy Assistant of Office of Air and Radiation, EPA, at 2 (Oct. 10, 2008) (noting NMFS's agreement that "current models do

⁴ EPA notes that neither the ESA nor its implementing regulations require EPA to obtain the Services' agreement that a specific agency action does not trigger consultation requirements, but "given the relative novelty of issues relating to GHG emissions from facilities permitted under EPA's Clean Air Act authorities and certain listed species, we are seeking to confirm that our agencies' respective understandings of relevant ESA obligations are consistent." Letter from Robert Meyers, Principal Deputy Assistant of Office of Air and Radiation, EPA, to H. Dale Hall, Director, FWS, and James Lecky, Director of Office of Protected Species, NMFS, at 2 (Oct. 3, 2008) ("EPA Letter").

⁵ Memorandum from Mark D. Myers, Director, U.S. Geological Survey, to Director, Fish and Wildlife Service, on The Challenges of Linking Carbon Emissions, Atmospheric GHG Concentrations, Global Warming, and Consequential Impacts ("USGS Memorandum"). The USGS Memorandum, which was released at the time the polar bear was listed as a threatened species in May 2008, summarized "some of the latest climate change results from the science community in defining [carbon dioxide] loading from individual actions and specific biological responses" and concluded "[t]hese results indicate that current science and models cannot link individual actions that contribute to atmospheric carbon levels to specific responses of species, including polar bears." *Id.* at 1. The letter added that past and current models regarding climate change and its impacts have primarily been developed at a global scale and that "[i]t is currently beyond the scope of existing science to identify a specific source of [carbon dioxide] emissions and designate it as the cause of specific climate impacts at an exact location." *Id.* at 2.

not allow us to trace a link between individual actions that contribute to atmospheric carbon levels and localized impacts relevant to a consultation” and confirming that consultation is not required for federal actions that present “at most a remote risk of harm . . . given the infinitesimal impact on global temperatures and [carbon dioxide] concentrations that [EPA] estimated the action will have”).

Relying on the information in the EPA Letter and the USGS Memorandum, the Solicitor of DOI properly concludes that although GHGs from a single source may ultimately constitute an extremely small constituent of the aggregate global concentration of GHGs, they cannot by themselves have a direct or immediate climate change effect. Moreover, with regard to indirect effects, the Solicitor’s Opinion cites the USGS Memorandum as indicating that “the causal link simply cannot currently be made between emissions from a proposed action and specific effects on a listed species or its critical habitat.” Solicitor’s Opinion at 6. This is because science cannot attribute “a tiny incremental global temperature rise that might be produced by an action under consideration” with an impact on a listed species or its habitat. *Id.* Rather, any such impacts would be the consequence of the collective GHG accumulation from natural sources and anthropogenically produced GHG concentrations since the beginning of the industrial revolution. *Id.*

Again citing the EPA Letter, the Solicitor’s Opinion further concludes that the potential magnitude of any effect to a listed species or its critical habitat that might occur from an individual source would be too small to physically measure or detect. Thus, it would not be possible to determine whether any indirect effects from a single source of GHGs would “cause” observed effects to a listed species or its critical habitat or that such effects would be “reasonably certain to occur.” *Id.* at 7. In conclusion, the Solicitor’s Opinion states that “where the effect at

issue is climate change in the form of increased temperatures, a proposed action that will involve the emission of GHG[s] cannot pass the ‘may affect’ test and is not subject to consultation under the ESA and its implementing regulations.” *Id.*

As these comments discuss below, the conclusions in the Solicitor’s Opinion are appropriate and correct in light of the ESA, its regulations, relevant case law, and the best scientific data. The Services should reaffirm the conclusions of the Solicitor’s Opinion that individual GHG sources cannot be either the “but for” or the “proximate” cause of any adverse effect on a listed species. Specifically, the Services should affirm these conclusions in any revisions they make to the section 7 regulations and in revisions to the *Endangered Species Consultation Handbook – Procedures for Conducting Consultation Under Section 7 of the Endangered Species Act* (“ESA Consultation Handbook”).

A. Individual GHG Sources Do Not Meet the “But For” Causation Standard.

Whenever causation is required under the ESA, there first must be a threshold determination that the conduct of an actor is the “but for” cause of the “take” or the direct or indirect effect. “But for” -- or actual -- causation exists with respect to given conduct where “the event would not have occurred but for that conduct.” *Boeing Co. v. Cascade Corp.*, 207 F.3d 1177, 1183 (9th Cir. 2000) (citing W. Page Keeton, et al., PROSSER & KEETON ON THE LAW OF TORTS § 41 (5th ed. 1984)) (“Prosser & Keeton”).

In the preamble to the 4(d) Rule for the polar bear, 73 Fed. Reg. at 76249 (Dec. 16, 2008), for example, the FWS made clear that for any proposed action to have a cognizable effect on a polar bear, that action must, as a threshold matter, at least be the actual or “but for” cause of the effect. According to the FWS, the initial step in any evaluation whether a proposed action may require consultation is to determine what happens to the polar bear ““with and without”” the

proposed action. *Id.* at 76265. The FWS further described this first step as a determination whether there is a “causal connection between the proposed action and a discernible effect to the species or critical habitat that is reasonably certain to occur.” *Id.* Although “but for” causation represents only the first step in analyzing causation (proximate cause is also required), the FWS in the 4(d) Rule rightly concluded that an individual source of GHG emissions cannot satisfy even this initial, threshold standard with respect to the polar bear. Similarly, for any other species listed due to the alleged effects of global climate change, an individual GHG source cannot be even a “but for” cause of climate change and its possible effects on species.⁶

The vanishingly small size of the contribution an individual source of GHG emissions makes to the global pool of GHG concentrations in the atmosphere illustrates why individual sources cannot meet actual causation requirements. Worldwide GHG emissions were approximately 49,000 million metric tons of carbon dioxide-equivalent in 2004.⁷ By comparison, the annual emissions from a large individual coal-fired power plant generating around 500 megawatts of electricity would be at most approximately 3.92 million metric tons of carbon dioxide-equivalent — or 0.008 percent of the worldwide total -- and many individual sources of GHGs would be substantially smaller.⁸ With China having surpassed the United

⁶ Because, as a threshold matter, actual causation is required for an action to meet the definition of a “take,” operation of an individual source of GHG emissions also cannot be considered to constitute a “take” of a listed species. For example, any effect on the polar bear through modeled changes in sea ice that may be associated with global climate change would occur even without the operation of an individual source of GHG emissions.

⁷ CLIMATE CHANGE 2007: MITIGATION OF CLIMATE CHANGE, CONTRIBUTION OF WORKING GROUP III TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Cambridge University Press 2007) at 27.

⁸ Emissions & Generation Resource Integration Database (“eGRID”), eGRID2006 Version 2.1, U.S. Environmental Protection Agency, April 30, 2007, <http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html>. Emissions data provided by eGRID is in short tons, which have been converted into metric tons by multiplying by 0.907. *See also* “Carbon Dioxide Emissions From Power Plants Rated Worldwide,” SCIENCE DAILY (July 2, 2008), *at*

States as the world's largest GHG emitter⁹ and the emissions from other developing countries such as India, Brazil, and Indonesia also rising rapidly,¹⁰ it is clear that any effect on a listed species or its habitat that might occur as a result of GHG concentrations in the atmosphere would occur regardless of whether such an individual source is in operation.

Thus, under the existing section 7 regulations, an individual federal action or an individual source of GHG emissions does not satisfy the threshold causation standard required to establish an "effect" on a listed species that may be associated with global climate change because any effect on that species would occur even without the operation of an individual source of GHG emissions. In other words, there is no basis to conclude that the operation of an individual source could be the actual or "but for" cause of a "take" of a listed species, or a direct or indirect effect on a listed species or its designated critical habitat. UARG urges the Services to confirm this important point in any revisions that may be made to the section 7 regulations and in the ESA Consultation Handbook.

B. Individual GHG Sources Do Not Meet the Proximate Causation Standard.

Even if GHG emissions are found to be the actual or "but for" cause of a direct or indirect effect on a listed species or its designated critical habitat, that is not the end of the inquiry; the emissions must also be found to be a proximate cause of the indirect effect before consultation is

<http://www.sciencedaily.com/releases/2007/11/071114163448.htm>. Moreover, when the contribution of an individual source is considered in the context of all past emissions of GHGs reflected in the global pool, in addition to the current annual emissions, the proportion of GHG concentrations attributable to that source shrinks even further.

⁹ "China contributing two thirds to increase in CO₂ emissions," Netherlands Environmental Assessment Agency (June 13, 2008), *at* <http://www.pbl.nl/en/news/pressreleases/2008/20080613ChinacontributingtwothirdstoincreaseinCO2emissions.html>.

¹⁰ *See generally* WORLD ENERGY OUTLOOK 2007: CHINA AND INDIA INSIGHTS, INTERNATIONAL ENERGY AGENCY (2007).

required. UARG recommends that in any revisions to the section 7 regulations the Services codify a proximate cause standard in defining direct and indirect effects.

The case law provides support for applying a proximate cause standard. For example, the Eleventh Circuit has held that the consultation provisions of section 7 require both actual and proximate causation. *Florida Key Deer v. Paulison*, 522 F.3d 1133 (11th Cir. 2008). In *Florida Key Deer*, the Eleventh Circuit held that the statutory and regulatory framework for determining when an agency action requires consultation under section 7 is materially indistinguishable from the framework of the National Environmental Policy Act (“NEPA”), which the Supreme Court has confirmed applies only to effects that are “proximately caused” by federal action. *Id.* at 1143 (citing *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 770 (2004)).¹¹ The Supreme Court subsequently applied similar reasoning in the ESA section 7 context in *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007). There, the Court observed that, while Section 7 imposes both substantive and procedural requirements, “the basic principle announced in *Public Citizen* -- that an agency cannot be considered the legal ‘cause’ of an action that it has no statutory discretion not to take -- supports the reasonableness of the FWS’s interpretation of § 7(a)(2) as reaching only discretionary agency actions.” 551 U.S. at 692 n.13. In a similar vein, the Supreme Court in *Sweet Home* concluded that liability for a “take” under the ESA is limited by “ordinary requirements of proximate causation and foreseeability.” 515 U.S. at 700 n.13 (noting that proximate cause is narrower than “but for” causation). In light of the case law

¹¹ Under NEPA, courts have found that a federal agency action is the legal or proximate cause of an environmental impact only if an agency has jurisdiction to control that impact under its organic law. *Pub. Citizen*, 541 U.S. at 767; *Wetlands Action Network v. U.S. Army Corps of Eng’rs*, 222 F.3d 1105, 1116-17 (9th Cir. 2000). Even though NEPA may be broader, these cases provide yet more support for applying a proximate cause standard under the ESA.

applying a proximate cause standard in ESA and NEPA cases, the Services should explicitly adopt the proximate cause standard in an revisions to the section 7 regulations.

Proximate cause requires a “direct relation between the injury asserted and the injurious conduct alleged.” *Holmes v. Sec. Investor Prot. Corp.*, 503 U.S. 258, 268 (1992). Proximate cause also embodies the requirement of substantiality. *See Milwaukee & S.P.R. Co. v. Kellogg*, 94 U.S. 469 (1877). As traditionally formulated, proximate cause requires, *inter alia*, that an actor’s conduct be a “substantial factor” in bringing about harm to another. Restatement (Second) of Torts § 834 cmt. d (“When a person is only one of several persons participating in carrying on an activity, his participation must be substantial before he can be held liable for the harm resulting from it. This is true because, to be a legal cause of harm, a person’s conduct must be a substantial factor in bringing it about.”); *id.* § 431. Moreover, emphasizing the “closeness” of the connection, proximate cause does not exist where an injury is too remote from the alleged wrongful conduct. *See In re Exxon Valdez*, 270 F.3d 1215, 1253 (9th Cir. 2001) (“the requirement of proximate cause bars remote and speculative claims”); *Benefiel v. Exxon Corp.*, 959 F.2d 805, 808 (9th Cir. 1992) (finding no proximate cause because injuries were too “remote and derivative” and defendants’ conduct “did not directly cause any injury”); *see also Ass’n of Washington Pub. Hosp. Districts v. Philip Morris Inc.*, 241 F.3d 696, 706 (9th Cir. 2001).

Injuries are too remote to satisfy the requirements of proximate cause if they can be connected to the alleged wrongful conduct only by multiple links in an attenuated chain of causation. *Benefiel*, 959 F.2d at 807 (referring to “uniformly accepted principles of tort law that require a plaintiff to prove more than that the defendant’s action triggered a series of other events that led to the alleged injury”). As Prosser and Keeton explain:

[T]he consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. But any attempt to impose

responsibility upon such a basis would result in infinite liability for all wrongful acts, and would set society on edge and fill the courts with endless litigation.

Prosser & Keeton § 41 (internal quotation omitted). Consequently, proximate cause cannot exist if there are simply too many links in the causal chain between the alleged wrongdoing and injury; if the chain of causation is too attenuated, courts will hold that the alleged injuries are, as a matter of law, too remote to satisfy the requirement of proximate cause. Insubstantial, speculative, and remote effects that do not meet proximate cause requirements need not and should not be included in the “indirect effects” analysis.

1. Any Effects of GHG Emissions From a Single Source Are Too Remote To Be Causally Linked to Any Impacts on Individual Species or Its Habitat Associated With Climate Change.

As the FWS concluded in the 4(d) Rule, 73 Fed. Reg. at 76265-66, the putative causal chain that would be necessary to tie the GHG emissions from a single source to the “take” of, or an “effect” on, a listed species is far too lengthy and attenuated to permit a finding of proximate cause. This is so because the alleged chain of causation includes at least the following highly attenuated links:

- (1) A single source emits GHGs;
- (2) GHG emissions from that source enter the global pool of GHG concentrations in the atmosphere;
- (3) The GHG emissions from the individual source mix with the rest of the planet’s GHGs and distribute evenly across the globe;
- (4) These accumulated atmospheric concentrations -- a large fraction of which were emitted decades and even centuries ago -- trap heat in the upper atmosphere;
- (5) The trapped heat from the global GHG concentrations raises the temperature of the atmosphere;

- (6) The increased atmospheric temperature gives rise, over time, to specific physical phenomena such as sea level rise, sea temperature increases, or drought; and
- (7) Those specific phenomena result in actual injury or death to a specific listed species or some other discernible effect to listed species or critical habitat at a particular location.

The alleged chain of causation described above between a single source and an effect on a listed species or critical habitat is far too remote and attenuated. The emissions from the single source alone have no discernible or traceable effect on a listed species or its habitat. The potential for future injury to a particular listed species would arise only from the aggregated effects of innumerable emissions from around the world and over the course of decades or centuries -- an aggregation for which the single source cannot be responsible. Because GHG emissions from any one source are not a “but for” or proximate cause of any impacts that may be associated with climate change, Secretary Salazar and the Solicitor’s Opinion have correctly determined that the effects of those emissions are not cognizable under the current consultation regulations.

2. Scientific Evidence Demonstrates that Any Connection Between GHG Emissions from an Individual Source and an “Indirect Effect” on a Listed Species or Its Habitat Is Entirely Speculative.

The scientific understanding of climate change supports Secretary Salazar’s and the Solicitor’s Opinion’s determination that emissions from individual sources of GHG emissions do not constitute an “indirect effect” because all of the analyses and modeling conducted on climate change assess the impact of the entire global pool of GHGs on continental or, at best, sub-continental scales. Neither these analyses and modeling nor the science establish any impacts of

an individual source of GHG emissions, as distinguished from the entire global pool of GHG concentrations.¹²

Even with a massive source term (*i.e.*, the global pool of GHG concentrations) and a huge area of impact (*i.e.*, continents), there is substantial uncertainty surrounding the predictions made by these models and analyses. An attempt to isolate an individual source's emissions from this global pool and impute to that source a particular impact on localized habitat or on a particular species would exponentially multiply the uncertainties already inherent in the current macro-scale of analysis and would far exceed the outer limits of applicable principles of causation.

The Intergovernmental Panel on Climate Change ("IPCC") and other scientific assessments of climate change acknowledge that uncertainties exist at all levels of analyses and modeling with respect to forecasting the impact of the global pool of GHG emissions on a particular region, such as North America.¹³ As the IPCC stated:

¹² The USGS Memorandum offers a similar assessment of the present state of climate science: "The final conclusion that can be reached from this information is that human-induced global warming can be observed and verified at global to continental scales where cumulative GHG concentrations can be measured and modeled. Climate impacts, however, are observed at specific locations, at much more specific and localized scales -- incongruent with the global scale of the aforementioned measured and modeled climate forces. It is currently beyond the scope of existing science to identify a specific source of [carbon dioxide] emissions and designate it as the cause of specific climate impacts at an exact location."

¹³ See, *e.g.*, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Cambridge University Press 2007) at 797 ("IPCC Working Group I Report"); see also M. Susan Lozier, et al., *The Spatial Pattern and Mechanisms of Heat-Content Change in the North Atlantic*, 319 SCIENCE 800 (Feb. 8, 2008) (questioning temperature trends data); Doug M. Smith, et al., *Improved Surface Temperature Prediction for the Coming Decade from a Global Climate Model*, 317 SCIENCE 796 (Aug. 10, 2007) (questioning the accuracy of existing modeling capabilities and describing methods to improve model accuracy); Josh K. Willis, et al., *Interannual variability in upper ocean heat content, temperature, and thermocline expansion on global scales*, 109 J. GEOPHYSICAL RESEARCH C12036 (2004) (discussing uncertainties associated in predicting rises in sea level and variability in ocean temperatures); Roger Pielke, Sr., et al., *Documentation of Uncertainties and Biases Associated with Surface Temperature*

Uncertainty in predictions of anthropogenic climate change arises at all stages of the modeling process. . . . The specification of future emissions of greenhouse gases, aerosols and their precursors is uncertain. It is then necessary to convert these emissions into concentrations of radiatively active species, calculate the associated forcing and predict the response of climate system variables such as surface temperature and precipitation. At each step, uncertainty in the true signal of climate change is introduced both by errors in the representation of Earth system processes in models and by internal climate variability.¹⁴

The IPCC itself has difficulty modeling impacts from projected climate change. For example, the IPCC's 40 different modeling scenarios range from no action on climate change to profound transitions to low carbon technologies, which yield estimated atmospheric carbon dioxide concentrations ranging from 1260 to 490 parts per million (ppm) of carbon dioxide by 2100.¹⁵ This very broad range illustrates the effect of uncertainties in attempts to simulate the global climate system, including the potential impacts of future policy responses to climate change. This range also illustrates how policy responses could influence the models' predictions. As one example, terrestrial sequestration of carbon dioxide, such as through forestry projects and changes in land use, could affect atmospheric concentrations by 40 to 70 ppm, or approximately 11 to 18 percent of current atmospheric concentrations of carbon dioxide.¹⁶

The IPCC Special Report recognized the uncertainties inherent in both climate models and potential policy responses:

A large uncertainty surrounds future emissions and the possible evolution of their underlying driving forces, as reflected in a wide range of future emissions paths in the literature. The uncertainty is further compounded in going from emissions paths to climate change, from climate change to possible impacts and finally from

Measurement Sites for Climate Change Assessment, AMERICAN METEOROLOGICAL SOCIETY (June 2007) (discussing uncertainties and biases in assessing temperature data).

¹⁴ IPCC Working Group I Report, at 797 (internal citations omitted).

¹⁵ *Id.* at 63; *see also* IPCC SPECIAL REPORT EMISSIONS SCENARIOS, A SPECIAL REPORT FROM WORKING GROUP III (Cambridge University Press 2000) ("IPCC Working Group III Special Report").

¹⁶ IPCC Working Group I Report, at 64.

these driving forces to formulating adaptation and mitigation measures and policies. These uncertainties range from inadequate scientific understanding of the problems, data gaps and general lack of data to inherent uncertainties of future events in general. Hence the use of alternative scenarios to describe the range of possible future emissions.¹⁷

The Arctic Climate Impact Assessment (“ACIA”) similarly acknowledged these uncertainties.¹⁸ In particular, the ACIA noted that “patterns of climate change and their impacts should be viewed at a fairly broad regional scale, as they become less certain and less specific at smaller scales.”¹⁹ The problems with climate models apply with equal force to regions and locales other than the Arctic. The uncertainties in determining emissions scenarios, emissions conversions, and associated forcings; the substantial but uncertain role of natural climate variability; and the inability of global models to be downscaled to regional or local scales with any specificity or accuracy all underscore the inability to attribute specific possible habitat or species effects to individual sources of GHG emissions. Accordingly, it is impossible to find that any impacts that may be associated with global warming are “effects” of an individual GHG source. Where there is not persuasive information that an alleged indirect effect on a listed species or its critical habitat is reasonably certain to occur, any such effect is, at best, speculative and may not be considered.

¹⁷ IPCC Working Group III Special Report, at Box 1-1.

¹⁸ See ARCTIC CLIMATE IMPACT ASSESSMENT (Cambridge University Press 2005) at 120 (stating, under the heading “Uncertainties in future GHG and aerosol emissions, their conversion to atmospheric concentrations, and their contribution to radiative forcing of the climate,” that: “Different assumptions about future social and economic development, and hence future greenhouse and aerosol emissions, comprise one of the major uncertainties in the climate change scenarios. For example, the IPCC Special Report on Emissions Scenarios (Nakisenovis and Swart, 2000; see also section 4.4.1) presents 40 different emissions scenarios. Uncertainty is also associated with the conversion of emissions into atmospheric GHG and aerosol concentrations. Additional uncertainty arises from the calculation of radiative forcing associated with given concentrations, which occurs implicitly within AOGCMs [atmosphere-ocean global circulation models], but is problematic in particular for aerosols.”).

¹⁹ *Id.* at 18.

Beyond the large uncertainties attributable to modeling the effects of the global pool of GHGs on a particular region or locale, there are additional uncertainties created by attempting to attribute specific modeled changes in the climate to individual sources. Attribution is a formal concept in climate science, defined by the IPCC as “establishing the most likely causes for the detected change with some defined level of confidence.”²⁰ As the IPCC said:

Difficulties remain in attributing temperature changes on smaller than continental scales and over time scales of less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established. Averaging over smaller regions reduces the natural variability less than does averaging over large regions, making it more difficult to distinguish between changes expected from different external forcings, or between external forcing and variability. In addition, temperature changes associated with some modes of variability are poorly simulated by models in some regions and seasons. Furthermore, the small scale details of external forcing, and the response simulated by models are less credible than large-scale features.²¹

The U.S. Climate Change Science Program (“USCCSP”) concurred with the IPCC that the “[f]ingerprint detection of GHG effects becomes more challenging at the continental or sub-continental scales.”²² Thus, all of these sources agree that attribution cannot be established with respect to the putative effects of individual sources on localized habitats or individual species. In fact, when the IPCC says that “attribution” has not been established “on smaller than continental scales and over time scales of less than 50 years” and the USCCSP indicates that fingerprinting

²⁰ IPCC Working Group I Report, at 668. Note that the “approaches used in detection and attribution research . . . cannot fully account for all uncertainties. . . .” *Id.* at 669.

²¹ *Id.* at 665.

²² *Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences*, CLIMATE CHANGE SCIENCE PROGRAM SYNTHESIS AND ASSESSMENT PRODUCT 1.1 (2006) at 101-02 (“Most of the early fingerprint detection work dealt with global-scale patterns of surface temperature change. The positive detection results obtained for ‘GHG-only’ fingerprints were driven by model-data pattern similarities at very large spatial scales (*e.g.*, at the scale of individual hemispheres, or land-versus-ocean behavior). Fingerprint detection of GHG effects becomes more challenging at continental or sub-continental scales. It is at these smaller scales that spatially heterogeneous forcings, such as those arising from changes in aerosol loadings and land use patterns, may have large impacts on regional climate.”).

is challenging even at the continental or sub-continental scales, it is clear that the IPCC and USCCSP cannot establish causation (“attribution”) to a degree remotely approaching that necessary to demonstrate that an individual source of GHG emissions causes a modification or degradation of localized habitat or an effect on members of a listed species. At best -- and even then subject only to significant uncertainty -- the IPCC attempts to predict only some degree of causation and effect at the global, hemispheric, or continental scales. Moreover, as the IPCC acknowledges, even such macro-scale predictions cannot establish causation on time scales of less than 50 years, thus precluding any possibility of establishing a “reasonable certainty of occurrence.”

In sum, the macro-scale models and analyses addressing the global pool of GHG concentrations and their potential impact on continental or larger ecosystems are fraught with important limitations and uncertainties -- uncertainties about emissions scenarios, variability in climate independent of GHG forcings, uncertainties in models and the representations of dynamic earth systems, and temporal uncertainties. With respect to individual sources of GHG emissions, there simply are not any reliable tools now or in the foreseeable future to predict their impacts in particular locations.

Equally important, although problems with and limitations of the models persuasively support the conclusion that no consultation is required for actions involving individual GHG sources, the modeling issue is only one of the reasons for this conclusion. Even if models were better (and they are not and may never be), there is no “but for” causation, and the purported links are too insubstantial and attenuated to meet the proximate causation for the reasons discussed above. Therefore, no causation exists *as a matter of law* regardless of the quality of models.

Accordingly, the conclusion in the Solicitor's Opinion that individual sources of GHG emissions are not reasonably certain to cause effects on listed species or critical habitat at a particular location is not only entirely proper but also inescapable. The impacts from individual GHG sources are highly speculative and are not reasonably certain to occur. Moreover, there is simply no basis on which to conclude that GHG emissions from an individual source are a "proximate cause" of any impacts to listed species or critical habitat at a particular location.

3. The GHG Emissions From a Single Source Are Not a Substantial Factor Causing Global Climate Change.

As discussed more fully above, a 500 megawatt coal-fired power plant contributes, at most, only 0.008 percent to the global pool of annual GHG emissions and much less than that to global GHG concentrations, and in any event specific impacts on particular species or their habitat cannot be attributed to individual GHG sources. An individual GHG emissions source cannot meet either the "substantial factor" or the "foreseeability" requirement of the proximate cause standard because it is impossible to show that such a source contributing a minuscule fraction of GHG concentrations could be a "substantial" factor in bringing about any alleged harm to the species. *See* Restatement (Second) of Torts § 431. "Whether conduct is a 'substantial factor in bringing about harm' depends in part on whether 'the actor's conduct ... has created a situation harmless unless acted upon by other forces for which the actor is not responsible.'" *Benefiel*, 959 F.2d at 807 (quoting Restatement (Second) of Torts § 433(b)). By the same token, regardless of modeling problems and other uncertainties and limitations in the science, an individual source of GHGs could not lead to any destruction or adverse modification of designated critical habitat. This further supports the conclusion in the Solicitor's Opinion that any impacts associated with global climate change are not effects, "indirect" or otherwise, of an individual source's GHG emissions.

III. Conclusion

In considering whether (and how) to revise the section 7 regulations, the Services should consider confirming in the regulations that consultation is not required for an individual source of GHG emissions based on any contribution that source may make to global climate change effects. In a report on interagency collaboration during section 7 consultations, the Government Accountability Office concluded that the consultation process could be improved by resolving disagreements about when consultation is needed. *See* 73 Fed. Reg. 47868, 47869 (Aug. 15, 2008). The Services should clarify the regulations to incorporate explicitly the policy statements of Secretary Salazar and the determinations of the Solicitor of the Department of the Interior, with which NMFS agreed in the NMFS Letter, that consultation is not required to address alleged effects on listed species or critical habitat from an individual source of GHG emissions. This clarification would help to avoid disagreements and confusion about whether consultation is required. Such a clarification would reaffirm that there is no need to consult on an individual GHG source because GHG emissions from an individual source are neither a “but for” nor proximate cause of any species impacts that may be associated with global climate change.²³ A confirmation of these conclusions in revised section 7 regulations will help to prevent an improper expansion of the ESA for a purpose for which it was never intended -- to regulate GHG emissions.

²³ Similarly, although unrelated to the section 7 consultation provisions, it would be useful for the Services to confirm that “take” also requires a showing of proximate cause. As the Supreme Court explained in *Sweet Home*, the concept of “harm” is limited by “ordinary requirements of proximate causation and foreseeability,” 515 U.S. at 700 n.13, and as the U.S. Court of Appeals for the Ninth Circuit explained in *Arizona Cattle Growers*, a “take” must be “reasonably certain to occur” and cannot be based on “speculation,” 273 F.3d at 1247. UARG requests the Services to confirm in any final revisions to the section 7 regulations (or in the preamble to any such revisions) that, in order to establish a “take,” a federal agency or third party must demonstrate that the federal action is the proximate cause of, and must be “reasonably certain” to result in, the “take.”