



**WESTERN RESOURCE**  
**ADVOCATES**

*Sent via email ([GCC.guidance@ceq.eop.gov](mailto:GCC.guidance@ceq.eop.gov))*

May 24, 2010

Nancy Sutley, Chair  
Council on Environmental Quality, Attn: Ted Boling  
722 Jackson Place, NW.  
Washington, DC 20503

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

Dear Ms. Sutley:

Western Resource Advocates ("WRA") appreciates the opportunity to submit this comment letter on the Council on Environmental Quality's ("CEQ") "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions," ("Draft Guidance") announced February 18, 2010. WRA is a nonprofit conservation organization dedicated to protecting the Interior West's land, air, and water.

We commend the CEQ for recognizing that the National Environmental Policy Act ("NEPA") provides a critical framework for both evaluating the greenhouse gas ("GHG") emissions of a proposed action and alternatives, and the potential climate change effects to a proposed action and its alternatives. Generally, WRA believes that the Draft Guidance provides a strong foundation for agency consideration of GHGs and climate change under NEPA. We are especially supportive of CEQ's over-arching proposal to:

advise Federal agencies that they should consider opportunities to reduce GHG emissions caused by proposed Federal actions and adapt their actions to climate change impacts throughout the NEPA process and to address these issues in their agency NEPA procedures.

Draft Guidance at 1.

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However, as we discuss below, there are many ways to improve the Draft Guidance:

- ✓ The Draft Guidance should apply equally to federal land and resource management decisions.
- ✓ The Draft Guidance should increase the range of factors considered in analyzing the potential effects of proposed agency action on GHG emissions.
- ✓ The Draft Guidance should analyze a broad range of effects of climate change on proposed agency action and should weight this analysis toward larger more dire projections of climate change.

**I. The Draft Guidance should apply to federal land and resource management decisions under NEPA.**

Under NEPA, agencies preparing land use plans under the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1712, are required to consider climate change and all reasonably foreseeable greenhouse gas emissions that result from agency’s adoption of the plan. Pursuant to NEPA’s “hard look” requirement, 42 U.S.C. § 4332(2)(C), agency “assessment of all ‘reasonably foreseeable’ impacts *must occur at the earliest practicable point*, and must take place before an ‘irretrievable commitment of resources’ is made.” *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 718 (10th Cir. 2009) (emphasis added) (holding that the Bureau of Land Management failed to comply with NEPA in its plan-level analysis); *see also* 40 C.F.R. § 1501.2 (“Agencies shall integrate the NEPA process at the earliest possible time to insure that planning and decisions reflect environmental values.”). “[D]ilatory or ex post facto environmental review cannot cure an initial failure to undertake environmental review.” *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 785 (9th Cir. 2006). Under NEPA, “the fact that climate change is largely a global phenomenon that includes actions that are outside of the agency’s control does not release the agency from the duty of assessing the effects of *its* actions on global warming within the context of other actions that also affect global warming.” *Center for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) (emphasis in original; internal quotations omitted).

NEPA already provides the framework for agency consideration of GHG emissions and climate change. As noted above, agencies must take a hard look at all reasonably foreseeable impacts at the earliest practicable time. *Richardson*, 565 F.3d at 718. This requirement is mandatory and not subject to agency discretion.

CEQ’s decision to separately consider federal land and resource management decisions appears arbitrary and inconsistent with NEPA. We fail to see how agencies’ “lack [of an] established Federal protocol” for consideration of GHG emissions and climate change, Draft Guidance at 4, justifies a potentially lesser application of NEPA GHG and climate change guidance to federal land and resource management decisions. NEPA is clear: agencies must evaluate the environmental impacts of major federal actions, regardless of the existence of established protocols for doing so.

**a. Landscape-scale GHG emissions analysis is necessary to ensure informed decision-making for GHG-intensive unconventional fuels, including commercial oil shale and tar sands development.**

The need for landscape-scale consideration of GHG emissions is amply illustrated by the Bureau of Land Management's ("BLM") 2008 decision to open millions of acres of public lands to commercial oil shale and tar sands development. Oil shale and tar sands development have the potential, under commercial leasing scenarios, to dwarf the current per-unit liquid fuel GHG emissions from onshore oil and gas development in the West.<sup>1</sup> In fact, large-scale commercial production could have such climate impacts that it could negate the progress achieved towards reducing emissions across all other sectors of the economy.

BLM violated NEPA when it hastily amended ten land management plans in Colorado, Wyoming, and Utah to open approximately two million acres of public land to commercial oil shale leasing, and over 430,000 acres to commercial tar sands leasing in the Record of Decision approving the Final Oil Shale and Tar Sands Programmatic EIS ("OSTS PEIS").<sup>2</sup> The OSTS PEIS devotes only two sentences describing the specific contribution of this unprecedented expansion of GHG-intensive unconventional fuel development to climate change:

[I]ncreasing concentrations of GHG . . . are likely to accelerate the rate of climate change. The direct emissions of climate change air pollutants from oil shale development facilities are likely to be a small fraction of global emissions."

OSTS PEIS at 4-51. In the OSTS PEIS, BLM saw fit to assume an oil shale production rate of 250,000 bbl/day, *id.* at 4-2, yet BLM failed to estimate the range of potential GHG emissions of that production rate using widely-accepted and publically available estimates that could be used to compare the carbon intensity of oil shale to conventional oil. *See, e.g.,* DR. JEREMY BOAK, CO<sub>2</sub> RELEASE FROM IN-SITU PRODUCTION OF SHALE OIL FROM THE GREEN RIVER FORMATION IN THE WESTERN UNITED STATES (Colorado Energy Research Institute, 2007) (discusses computer model confirming that the CO<sub>2</sub> emissions of oil shale development would be "large")<sup>3</sup>; Dr. Jeremy Boak, *Impacts of Oil Shale on Carbon Emissions* 20 (Feb. 2, 2010) (power point presentation)<sup>4</sup>.

The BLM analysis was flawed. Its presumption of a 250,000 bbl/day industry was 4 or 5 times lower than industry's own projections. Second, the reference to climate change (excerpted above) ignored the enormous GHG emissions from electricity generation that would power oil shale. Third, the percentage contribution of oil shale to "global emissions" was an inappropriate measuring stick.

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<sup>1</sup> Comparison of Oil Produced From Shale GHG to Oil Produced from Conventional Methods (summary of academic research), *attached as* Exh. A.

<sup>2</sup> Available at <http://ostseis.anl.gov/index.cfm>.

<sup>3</sup> Available at <http://www.ceri-mines.org/documents/27symposium/papers/ma15-1boak.pdf>.

<sup>4</sup> Available at <http://www.colorado.edu/law/centers/nrlc/events/past5.html>.

In the OSTTS PEIS, BLM's failure to take a hard look at the landscape-scale GHG emissions of unconventional fuels violated NEPA, resulted in uninformed decision-making, and illustrates why CEQ should require quantitative landscape-scale GHG analysis in the Draft Guidance.

Where landscape-scale development is proposed and contemplated, it should be fully analyzed in light of the potential climate and GHG impacts to ensure informed decision-making. The impacts will depend on many factors yet to be determined, including extraction technologies and power sources. However, all federal and private decision-making regarding unconventional fuels should be informed by their potential impacts on climate change. To ensure accurate data, companies engaged in research, development and demonstration projects should be required to submit comprehensive reports on all GHG emissions, verified by independent monitoring by federal agencies or their contractors.

***b. Federal agencies could predict the greenhouse gas emissions of resource management plan alternatives based upon a “reasonably foreseeable development” scenario.***

In numerous cases, quantification of GHG emissions in the land use plan may be practicable. Fluid mineral development provides an example of where predicted GHG emissions could be readily estimated on a landscape scale. BLM has long prepared a “reasonably foreseeable development” (“RFD”) scenario for fluid mineral development. BLM Handbook H-1624-1, *excerpts attached as Exh. B*. In the RFD, BLM projects the number of wells it anticipates over the life of the plan based on variables including past and present leasing, exploration, and development activity; or, where there is little development or production data, minimum levels of exploratory drilling. *Id.* at III-7. BLM also estimates the level of associated potential GHG-emitting activities and facilities including, but not limited to, production facilities, well pads, CO<sub>2</sub> venting, flaring, and hydraulic fracturing. *Id.* at III-8. Where alternatives may significantly vary management of fluid minerals, BLM prepares a separate RFD scenario for each alternative to help the agency and the public compare and evaluate alternatives. *Id.* at III-12. The framework already exists for quantification of fluid mineral development's GHG emissions on a landscape scale.

Although some industrial processes lack comprehensive methodology for modeling GHG emissions, this does not excuse agencies from declining to develop such methods when required by NEPA. Admittedly, implementation of new GHG measuring techniques will take time. However, in the oil and gas context, EPA Region 8 is already beginning to develop methods for measuring fugitive methane emissions from oil and gas fields. ROBIN SEGALL, ET AL., U.S. ENVTL. PROTECTION AGENCY, UPSTREAM OIL AND GAS EMISSIONS MEASUREMENT PROJECT.<sup>5</sup> CEQ's Draft Guidance should require additional landscape-scale GHG modeling efforts and not merely rationalize the lack of existing protocols for measuring GHG emissions.

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<sup>5</sup> Available at <http://www.epa.gov/ttn/chief/conference/ei18/session5/segall.pdf>.

***c. NEPA Alternatives and mitigation strategies should be developed in coordination with agency efforts to reduce GHG emissions.***

Landscape-scale NEPA evaluations of GHG emissions should incorporate significant agency actions already underway in an effort to reduce agency contributions to climate change. For example, on September 14, 2009, Department of Interior (“DOI”) Secretary Ken Salazar announced the creation of the DOI Carbon Footprint Project (“Project”). The Project will “develop a unified greenhouse gas emission reduction program, including setting a baseline and reduction goal for the Department’s greenhouse gas emissions and energy use.” U.S. Dept. of Interior, Sec. Order No. 3289.<sup>6</sup> Consultation with the Project may be useful for other departments seeking to reduce their GHG emissions on a landscape scale. Also the Project may provide a model for other agencies’ GHG reduction efforts.

Landscape-scale NEPA analyses of the impacts of climate change should be coordinated with broader agency efforts to mitigate the impacts of climate change. For example, pursuant to Secretarial Order 3289, the DOI developed a “Plan for a Coordinated, Science-Based Response to Climate Change Impacts on our Land, Water, and Wildlife Resources” (“Coordinated Climate Response Plan”).<sup>7</sup> In the Coordinated Climate Response Plan, DOI established the Climate Science Centers (“CSCs”) and Landscape Conservation Cooperatives (“LCCs”). Eight regional CSCs “will provide scientific information tools and techniques that land, water, wildlife and cultural resource managers and other interested parties can apply to anticipate, monitor and adapt to climate and ecologically-driven responses at regional-to-local scales.” Coordinated Climate Response Plan at 2. Perhaps most relevantly, the LCCs will “inform integrated resource management actions addressing climate change and other stressors within and across landscapes. They will link science and conservation delivery.” *Id.* at 3. The LLCs will be directed by steering committee made up of regional stakeholders. *Id.* Any resource objectives, plans, and information developed by the CSCs and LLCs should be incorporated into landscape-scale NEPA analyses.

***d. CEQ’s decision to separately consider federal land and resource management decisions causes needless confusion regarding the consideration of GHGs and climate change in NEPA documents.***

We do not read the Draft Guidance as proposing to entirely exempt consideration of GHG emissions and climate change impacts from land and resource management decisions. *See* Draft Guidance at 2 (“CEQ seeks public comment on . . . the assessment of climate change effects of land management activities . . . so that [NEPA analysis] is proportional to the importance of climate change to the decision making process.”). Such a policy would be contrary to NEPA and would amount to poor public policy. However, CEQ should clarify that agencies must consider GHG emissions and climate change

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<sup>6</sup> Order 3289, Amendment No. 1 (Feb. 22, 2010), *attached as* Exh. C.

<sup>7</sup> *Attached as* Exh. D.

impacts as a part of NEPA analysis of land and resource management decisions, regardless of whether there are existing protocols for doing so.

## **II. Consideration of the Effects of a Proposed Agency Action on GHG Emissions**

We appreciate CEQ's effort to establish agency procedures for analyzing the GHG emissions resulting from major federal actions. The Draft Guidance generally provides an appropriate foundation for determining whether agencies should quantitatively evaluate the GHG emissions as a part of their NEPA analyses. We presume that the guidance applies to all federal agencies and to all types of federal resource management, including water development.

However, we believe the Draft Guidance overlooks other potential "indicators" for quantification and misconstrues the challenge of considering climate change under NEPA. The Draft Guidance appears to lose sight of the fact that any addition to GHG emissions is "significant." *See* Draft Guidance at 2. Because no one GHG action can be linked to specific climate change impacts, but all GHG emissions, no matter how small, contribute to the problem of climate change, then all GHG emissions are collectively significant. *See Center for Biological Diversity*, 538 F.3d at 1217 (finding that although a proposed emissions rule for light trucks would have an individually minor effect on the global climate, the rule was "collectively significant" within the meaning of 40 C.F.R. § 1508.7). "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Id.* CEQ should acknowledge that the very nature of climate change makes *all* GHG emissions collectively significant. Where a major federal action will result in direct or indirect GHG emissions, NEPA generally requires at least a qualitative description of the impacts of GHG emissions to the climate.

The real question facing agencies is whether *quantification* of GHG emissions would meaningfully assist decision-makers and the public in choosing between alternatives under NEPA. We agree with CEQ that the Draft Guidance's 25,000 metric-tons of CO<sub>2</sub>-equivalent of direct emissions is a valid "indicator" that an agency should quantitatively evaluate the GHG emissions as a part of its NEPA analyses.

However, CEQ should enumerate additional non-exclusive indicators that an agency should quantify GHG emissions in a NEPA document. Specifically, if the agency identifies alternatives with significantly lower GHG emission potential – including the No Action Alternative, 40 C.F.R. § 1502.14(d) – then this too should be an indicator that the agency and the public may benefit from a quantification of GHG emissions. Agencies should identify GHG mitigation opportunities during scoping or as a part of the comparison of energy use between alternatives under 40 C.F.R. § 1502.16(e), *see* Draft Guidance at 5. Quantification in these circumstances may also assist agencies evaluate the quality of mitigation, as proposed by the Draft Guidance on page 6.

Feasibility should be another indicator. Where GHG emissions are readily quantifiable, the Draft Guidance should require the agency to do so.

We strongly support CEQ’s proposal to have federal agencies “evaluate GHG emissions associated with energy use and mitigation opportunities and use this as a point of comparison between reasonable alternatives.” Draft Guidance at 5. However, this evaluation should also include the costs of energy and likely cost of a “cap” on carbon. This analysis will, for example, help assess impacts of the many large new energy-intensive water pipeline proposals throughout the western U.S.

Likewise, we support CEQ’s proposal that NEPA analysis “consider applicable Federal, State or local goals for energy conservation and alternatives for reducing energy demand or GHG emissions . . . .” Draft Guidance at 5. This analysis, however, should not be limited to emissions “associated with energy production” but rather include other sources of GHG as well.

Finally, CEQ should avoid any policy that would ignore qualitative consideration of GHG emissions where there are more than *de minimus* differences in GHG emissions between alternatives. We recognize the importance of avoiding “useless bulk and boilerplate documentation” in NEPA documents. However, where agency adoption of another action alternative or the No Action Alternative would avoid GHG emissions, climate change informs decision-making and is properly part of the NEPA analysis.

### **III. Consideration of Current or Projected Effects of Climate Change on Proposals for Agency Action**

Including the projected effects of climate change on an agency’s proposed action is essential, and we commend CEQ for its comprehensive, well-designed draft guidance in this section.

In the West, it is the cumulative impacts of climate change and agency actions that may have the greatest impact on the environment. To take a local example, proposals to divert and/or pipe water from river basins dozens or hundreds of miles distant to meet water needs of municipalities on Colorado’s Front Range may have significant *direct* impacts on river flows and ecosystems. However, the cumulative impacts of proposed municipal diversions *and* climate change—which is projected to increase summer air and stream temperatures, drive earlier runoff (and reduce runoff in late summer months), and in some places, reduce annual runoff—may be tremendous. As CEQ notes, in many places, the impacts of climate change are uncertain, but this does not exempt federal agencies from considering the potential impacts. Agencies should evaluate the cumulative impacts of an agency action under a range of different climate change scenarios, including those that show a more accelerated effect.

The best tool for addressing the uncertainty in climate change impacts is, first, to take action even if uncertainty remains, and to implement adaptive management strategies to address accelerating or unforeseen impacts.

Knowledge is, by its very nature, imperfect and incomplete. Some level of uncertainty always exists. This cannot, however, be an excuse for failing to analyze and make decisions in light of current knowledge and understanding and reasonable projections of the future. To avoid the ill-advised commitment of federal monies and public resources, NEPA Guidance should analyze a broad range of effects of climate change on proposed agency action and should weight this analysis toward larger more dire projections of climate change.

Federal agencies and project proponents must design comprehensive adaptive management strategies that establish at least two key elements:

- 1) A process and time frame for monitoring and measuring the impacts of an agency's action and climate change. The cumulative impacts of agency actions and climate change should be evaluated over the operating lifetime of the project.
- 2) Managing actions, including altered operations and new or modified infrastructure that eliminates or mitigates the cumulative impacts of agency actions and climate change. "Altered operations" can and should include ceasing project operation – temporarily or permanently – if cumulative impacts are severe and unable to be mitigated.

Comprehensive adaptive management plans must be an essential and required component of ongoing NEPA compliance.

We agree that "Climate change can increase the vulnerability of a resource, ecosystem, or human community, causing a proposed action to result in consequences that are more damaging than prior experience with environmental impacts analysis might indicate." Draft Guidance at 6. Importantly, this vulnerability exists even for *status quo* resource management (the No Action Alternative), as climate change can be expected to compound the effect of existing management practices. Concerns over vulnerability are heightened when considering new proposed actions. For example, climate change impacts on projected temperature, precipitation, and the timing of snowmelt run-off in the Colorado River basin could greatly disrupt the anticipated yield of new dams. Similarly, climate change will decrease the ability of landscapes to rebound from new levels of grazing use and resource extraction.

#### **IV. Conclusion**

Thank you again for your consideration. We urge CEQ to revise the Draft Guidance, consistent with these comments.

Sincerely,

A handwritten signature in black ink that reads "Bart P. Miller". The signature is written in a cursive style with a large initial 'B' and a distinct 'P'.

Bart Miller, Water Program Director  
Mike Chiropolos, Lands Program Director  
Robert Harris, Lands & Water Counsel  
Western Resource Advocates