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Triangle Park, NC 27711

**Re: Supplement to ITSSD Public Comments on EPA Proposed Power Plant Rule
Docket ID No. EPA-HQ-OAR-2013-0602**

Dear Ms. Conner:

The Institute for Trade, Standards and Sustainable Development (“ITSSD”) is pleased to respond, once again, to the Environmental Protection Agency’s “(EPA’s”) recent solicitation for public comments in regard to proposed *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units* (otherwise known as the “Clean Power Plan Proposed Rule” first proposed on June 2, 2014¹, and for which the public comment period has been extended, as detailed in the Federal Register.²

It may be recalled that ITSSD had responded to EPA’s solicitation for public comments by filing its own public comments on August 13, 2014, for inclusion in Docket ID No. EPA-HQ-OAR-2013-0602. These comments had been filed via Rocket-Docket email and directly via email with Mesdames Vasu and McLamb. Since said filing, ITSSD has obtained additional information that is germane and relevant to this proposed regulation, which ITSSD includes in the following supplementary comments for EPA’s review and consideration.

These supplementary comments relate to Sections I.1.a. and I.1.b. of ITSSD's [previously filed](#) August 13, 2014 comments.

Section I of our prior comments was entitled, "EPA Cannot Rely On The "Major" Climate Assessments and Computer Modeling Applications Supporting the EPA Administrator's Clean Air Act Section 202(a)(1) Greenhouse Gas Endangerment Findings as the Scientific Foundation For Its Proposed Power Plant Rule, Since EPA & DOC-NOAA Failed to Validate Such Science in Conformance With the Information Quality Act (44 U.S.C. 3516 note)."

Section I.1. of our prior comments was entitled, "EPA Has Failed to Validate Such "Major Assessments" in Conformance With the Most Rigorous and Least Discretionary Peer Review, Transparency, Objectivity/Bias, Conflict-of-Interest and Administrative Review Standards Imposed by the Information Quality Act."

Section I.1.a. of our prior comments was entitled, "EPA Still Needs to Disclose Many Specific Records That Would Reveal Whether EPA Satisfied its Level-One IQA Obligations."

Section I.1.b. of our prior comments was entitled, "EPA Still Needs to Disclose Many Specific Records That Would Reveal Whether EPA Satisfied its Level-Two IQA Obligations."

In sum, the supplementary comments we hereby submit relating to the above-referenced sections of our previously filed comments provide new information confirming that EPA has improperly relied upon, thirteen (13) EPA and NOAA-developed "major climate assessments supporting the Administrator's 2009 CAA Section 202(a) GHG Endangerment Findings as the scientific foundation for its "Clean Power Plan Proposed Rule." Since these "highly influential scientific assessments" ("HISAs") had not been peer reviewed in conformance with Information Quality Act conflict-of-interest, financial and intellectual independence and panel balance standards, EPA is legally precluded from using them for such purposes.

ITSSD would appreciate EPA's acknowledgement of receipt of this supplement to ITSSD's previously filed comments, and EPA's confirmation that such supplement, along with ITSSD's previously filed comments, have been posted to the same location on the above-referenced EPA docket as the Administrative Procedure Act requires.

Very truly yours,

Lawrence A. Kogan

Lawrence A. Kogan
CEO

December 1, 2014 Supplement
To ITSSD Public Comments On EPA Proposed Power Plant Rule
Previously Filed On August 13, 2014
Docket ID No. EPA-HQ-OAR–2013-0602

I. EPA is Precluded from Relying Upon Three EPA-Developed Highly Influential Scientific Assessments Not Peer Reviewed in Conformance With Information Quality Act Standards

As ITSSD’s August 13, 2014 public comments revealed, ITSSD had previously [filed with EPA](#) a new FOIA request ([Request EPA-HQ-2014-008026](#)) on June 30, 2014. Said FOIA request showed that EPA had been delegated ‘lead’ agency responsibility for developing three (3) interagency synthetic assessment products (“SAPSs”): SAP4.1/CCSP(2009b); SAP 4.4/CCSP(2008); and SAP4.6/CCSP(2008b). Table 1.1 of the Technical Support Document (“EPA-TSD”) accompanying the Administrator’s Clean Air Act Section 202(a) Greenhouse Gas Endangerment Findings indicates that SAP4.1 and SAP4.6 had constituted “core reference” documents upon which the Administrator had *primarily relied* in support of such Findings. While SAP4.4 had not been so categorized, it nevertheless had been incorporated by reference within a key NOAA-developed “core reference” document entitled, *Global Climate Change Impacts in the United States*,³ otherwise known as the Second National Climate Assessment that the Administrator had primarily relied upon, in part, as the scientific foundation of such Findings (*See* ITSSD FOIA Request EPA-HQ-2014-008026, at Appendices 2, 3 and 5).

The discussion below focuses on the IQA nonconformance of these three (3) assessments:

1. *The IQA Nonconformance of USGCRP/CCSP SAP4.1*

In accompanying Appendix 7A: “Author-Contributors, EPA-Developed USGCRP/CCSP SAP4.1” and 7B: “Technical Expert Reviewers, EPA-Developed USCRP/CCSP SAP4.1,” *infra*, please note that at least six peer reviewers had some institutional affiliation with either SAP author-contributors or a university or nonprofit institute receiving EPA grant funding:

- a. Ken Miller of the Maryland Department of Natural Resources, who had served as a “Technical Expert Reviewer” of USGCRP/CCSP SAP4.1, had been institutionally affiliated with Gwynne Schultz, of the Maryland Department. of Natural Resources, who served as an author-contributor to USGCRP/CCSP 4.1 (*See, infra*);
- b. Chris Spaur of the U.S. Army Corps Engineers, who had served as a “Technical Expert Reviewer” of USGCRP/CCSP SAP4.1, had been institutionally affiliated with Andrew Garcia of the U.S. Army Corps Engineers, who served as an author-contributor to USGCRP/CCSP SAP4.1;

- c. Eric Constance of the USGS, who had served as a “Technical Expert Reviewer” of Chap. 2 of USGCRP/CCSP SAP4.1, had been institutionally affiliated with USGCRP/CCSP SAP4.1 author-contributors Dean Gesch, K. Eric Anderson, Donald R. Cahoon, E. Robert Thieler, S. Jeffress Williams and Virginia Burkett of the USGS;
 - d. Todd Davison of NOAA, who had served as a “Technical Expert Reviewer” of Chap. 2 of USGCRP/CCSP SAP4.1 had been institutionally affiliated with USGCRP/CCSP SAP4.1 author-contributors Stephen Gill, Robb Wright and Doug Marcy of NOAA;
 - e. Jerry Johnston of EPA (the agency sponsoring the peer review and which had ‘lead agency’ development responsibility for SAP4.1), who had served as a “Technical Expert Reviewer” of Chap. 2 of USGCRP/CCSP SAP4.1, had been institutionally affiliated with USGCRP/CCSP SAP4.1 author-contributors James Titus (a senior EPA official) and James Samenow of EPA;
 - f. Jim O’ Connell of the University of Hawaii Sea Grant Program, who had served as a “Technical Expert Reviewer” of USGCRP/CCSP SAP4.1 had been affiliated with an institution of higher learning (the Univ. of Hawaii) that had participated in one or more EPA climate science related [grant](#)–funded programs (and also one or more NOAA-climate science research-related grant-funded programs (*see infra*)).
2. *The IQA Nonconformance of USGCRP/CCSP SAP4.6*

In Appendix 8A: “Author-Contributors, USGCRP/CCSP SAP4.6” and Appendix 8B: “EPA External Peer Review Panel/HICCAC Federal Advisory Committee For USCRP/CCSP SAP4.6,” *infra*, please note please note that at least six peer reviewers had some institutional affiliation with either SAP author-contributors or a university or nonprofit institute receiving EPA grant funding:

- 1. Barbara Entwisle of the University of North Carolina, who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change Advisory Committee (“HICCAC”), had been institutionally affiliated with David Godschalk of the University of North Carolina who had served as USGCRP/CCSP SAP4.6 author-contributor, *and* also had been affiliated an institution of higher learning (Univ. of North Carolina) that had participated in one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*));
- 2. Howard Frumkin of the Center for Disease Control & Prevention (“CDC”), who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change Advisory Committee (“HICCAC”), had been institutionally affiliated with USGCRP/CCSP SAP4.6 author-contributors George Luber and Michael McGeehin of the CDC;
- 3. Tom Dietz of Michigan State University, who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change Advisory Committee (“HICCAC”), had been affiliated with an institution of

higher learning (Michigan State Univ.) that had participated in one or more EPA climate [science](#) research-related [grant](#)-funded programs;

4. Jonathan Patz of the University of Wisconsin, who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change Advisory Committee (“HICCAC”), had been affiliated with an institution of higher learning (Univ. of Wisconsin) that had participated in [one or more](#) EPA climate [science](#) research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*));
5. Eugena Rosa of Washington State University, who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change Advisory Committee (“HICCAC”), had been affiliated with an institution of higher learning (Washington State Univ.) that had participated in one or more EPA climate [science](#) research-related [grant](#)-funded programs;
6. Susan Stonich of University of California Santa Barbara, who had served as an “EPA External Reviewer” of USCRP/CCSP SAP4.6 and a member of the EPA-established *ad hoc* Human Impacts of Climate Change (Federal) Advisory Committee (“HICCAC”), had been affiliated with an institution of higher learning (UC Santa Barbara) that had participated in one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science-related grant-funded programs (*see infra*)).

3. *The IQA Nonconformance of USGCRP/CCSP SAP4.4*

In Appendix 9A: “Author-Contributors, USGCRP/CCSP SAP4.4” and Appendix 9B: “EPA External Peer Review Panel/ASCERAC Federal Advisory Committee For USCRP/CCSP SAP4.4,” *infra*, please note that at least six peer reviewers had some institutional affiliation with either SAP author-contributors or a university or nonprofit institute receiving EPA grant funding:

1. [Elizabeth Malone](#), a climate research scientist of the Department of Energy [Pacific Northwest Laboratory](#) and of the University of Maryland/DOE Joint Global Change Research Institute, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee, had been institutionally affiliated with USCRP/CCSP SAP4.4 author-contributors Margaret Palmer and Louis Pitelka of the University of Maryland, *and* had been affiliated with an institution of higher learning (Univ. of Maryland) that had participated in one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science-related grant-funded programs (*see infra*));
2. Paul Risser of the University of Oklahoma, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee, had been affiliated with an institution of higher learning (Univ. of Oklahoma) that had participated in

one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*));

3. Joe Arvai of Michigan State University, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee (and who had also served as a member of the Report Review Committee evaluating the National Research Council/National Academy of Science peer review of NOAA-developed USGCRP/CCSP SAP5.2), had been affiliated with an institution of higher learning (Michigan State Univ.) that had participated in one or more EPA climate [science](#) research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*));
4. Carl Hershner of the Virginia Institute of Marine Science, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee, had been affiliated with an institution of higher learning (Virginia Inst. of Marine Science) that had participated in one or more EPA climate science research-related [grant](#)-funded programs;
5. David Patton of the University of Arizona, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee, had been affiliated with an institution of higher learning (Univ. of Arizona) that had participated in one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*));
6. Daniel Tufford of the University of South Carolina, who had served as an “EPA External Reviewer” of USGCRP/CCSP SAP4.4 and a member of the EPA-established *ad hoc* Adaptation for Climate-Sensitive Ecosystems and Resources (Federal) Advisory Committee, had been affiliated with an institution of higher learning (Univ. of So. Carolina) that had participated in one or more EPA climate science research-related [grant](#)-funded programs (and also in one or more NOAA-climate science research-related grant-funded programs (*see infra*)).

The institutional relationships described above arguably give rise to conflicts-of-interest, a lack of financial and intellectual independence from the sponsoring agency (EPA) and university/nonprofit institute recipients of EPA grants, and a lack of panel balance. These relationships contravene the well-defined Office of Management and Budget (“OMB”) and EPA Information Quality Act (“IQA”)-implementing peer review conflict-of-interest, independence and panel balance standards applicable to “highly influential scientific assessments” (“HISAs”), which ITSSD discussed comprehensively in its EPA FOIA request – EPA-HQ-2014-008026 (*supra*). As a result of these IQA violations, EPA is precluded from using these assessments as the scientific foundation for the “Clean Power Plan Proposed Rule,” *unless and until* EPA peer reviews these three assessments once again in conformance with IQA standards.

II. EPA is Precluded from Relying Upon Ten NOAA-Developed Highly Influential Scientific Assessments Not Peer Reviewed in Conformance With Information Quality Act Standards

Furthermore, since the time of ITSSD's August 13, 2014 filing of public comments for inclusion in Docket ID No. EPA-HQ-OAR-2013-0602, ITSSD filed with NOAA a new FOIA request ([Request No. DOC-NOAA-2014-000714](#)) on September 22, 2014. This FOIA request contains much new information that is relevant and germane to the EPA Administrator's reliance on ten NOAA-developed highly influential scientific assessments ("HISAs") which, in turn, is relevant and germane to EPA's "Clean Power Plan Proposed Rule."

EPA used and disseminated these ten (10) NOAA-developed assessments as the scientific foundation, in part, of both the CAA Section 202(a) GHG Endangerment Findings and the "Clean Power Plan Proposed Rule." Having used and publicly disseminated these assessments as its own, EPA had been obliged to ensure that they had been peer reviewed in full conformance with the Information Quality Act's peer review conflict-of-interest, independence and panel balance standards applicable to HISAs. Media outlets had previously taken notice of EPA's failure to ensure that the highly influential scientific assessments supporting the Administrator's CAA GHG Endangerment Findings had been peer reviewed/validated in conformance with applicable Information Quality Act standards, and how EPA can no longer rely upon them as support for the "Clean Power Plan Proposed Rule."⁴ Media outlets also reported about ITSSD's subsequent NOAA FOIA request filing which further substantiates these findings.⁵

As ITSSD's new NOAA FOIA request makes abundantly clear, NOAA had failed to ensure these ten (10) assessments had been internally or externally peer reviewed (by NOAA, NOAA-established federal advisory committees, interagency committees or by the National Research Council/National Academy of Sciences) in conformance with the well-defined OMB and NOAA Information Quality Act-implementing conflicts-of-interest, financial and intellectual independence and panel imbalance standards applicable to HISAs. Although these peer review practices had not been IQA-compliant, NOAA certified that they had been, and EPA had relied upon said certification without performing any further validation of said practices when it publicly disseminated such assessments as the scientific foundation for both its Endangerment Findings.

ITSSD's August 13, 2014 comments make clear that EPA again relied upon said assessments as the scientific foundation, in part, of the "Clean Power Plan Proposed Rule," but did so without validating whether the peer reviews of such assessments conformed with applicable IQA conflict-of-interest, financial and intellectual independence and panel balance standards.

As with the three (3) EPA-developed HISAs discussed in Section I above, applicable EPA and OMB IQA-implementing peer review conflict-of-interest guidelines preclude EPA from using these ten (10) NOAA-developed assessments as the scientific foundation for the "Clean Power Plan Proposed Rule," *unless and until* EPA peer reviews these assessments once again in conformance with such IQA standards.

III. Conclusion

EPA had been legally obliged to validate the IQA conformance of three (3) EPA-developed highly influential scientific assessments that had been peer reviewed internally by EPA officials and members of *ad hoc* EPA advisory committees and externally by ostensibly ‘independent’ peer reviewers, and which EPA had used and publicly disseminated as scientific support for the “Clean Power Plan Proposed Rule.” In addition, EPA had been legally required to validate the IQA conformance of ten (10) NOAA-developed highly influential scientific assessments that had been peer reviewed by NOAA, an interagency committee, and the National Research Council/National Academy of Sciences, since EPA had used and publicly disseminated each of these third party assessments as scientific support for the “Clean Power Plan Proposed Rule.”

EPA, however, failed to ensure the IQA conformance of the peer reviews performed of each such assessment – i.e., whether they had satisfied the most rigorous and least discretionary applicable OMB, EPA and NOAA IQA-implementing conflict-of-interest, financial and intellectual independence and panel balance guidelines. Since EPA did not validate that the peer reviews of these thirteen (13) assessments had fully satisfied such applicable IQA standards, EPA is precluded, as a matter of law, from relying on such HISAs and the data sets and computer modeling applications contained therein as the scientific foundation, in part, of the “Clean Power Plan Proposed Rule.” EPA may not reference these assessments as support for the “Clean Power Plan Proposed Rule” unless and until EPA peer reviews these three assessments once again in conformance with IQA standards.

END

IV. Appendices - (Supplements Appendices Accompanying Request EPA-HQ-2014-008026)

**Appendix: 7A
Author-Contributors*
EPA-Developed
USGCRP/CCSP SAP4.1**

USG Scientist/Agency Scientist/Other Gov't	Non-USG Scientist/Entity Affiliation	Entity Participation in EPA Grant- Funded Program	Affiliated With Federal Advisory Committee (CESLAC) Member
K. Eric Anderson, USGS Preface; Exec. Summ.; Chap. 1 Overview; Lead, Chap. 1; Part IV Overview; Chap. 13; Chap. 14;			
Donald R. Cahoon, USGS Preface; Exec. Summ.; Chap. 1 Overview; Lead, Chap. 1; Lead, Chap. 4; Part IV Overview; Chap. 13; Chap. 14;			
Benjamin T. Gutierrez, USGS Preface; Exec. Summ.; Chap. 1 Overview; Lead, Chap. 1; Contrib., Chap. 2 ; Chap. 3; Part IV Overview; chap. 13; Chap. 14;			
E. Robert Thieler, USGS Preface; Exec. Summ.; Chap. 1 Overview, Lead Chap. 1; Chap. 3; Part IV Overview; Chap. 13; Chap. 14;			
S. Jeffress Williams, USGS Preface; Exec. Summ.; Chap. 1 Overview; Lead, Chap. 1; Chap. 3; Part IV Overview; Chap. 13; Chap. 14;			
Dean Gesch, USGS Chap. 1 Overview; Lead, Chap. 2 ; Part IV Overview;			
James Titus, EPA Preface; Exec. Summ; Lead, Chap. 1; Part II Overview; Chap. 6; Lead, Chap. 7; Chap. 8; Part III Overview; Lead, Chap. 10; Chap. 11; Chap. 12; Chap. 13; Appendix 1, Secs. A, C-G;			Jack Fitzgerald, EPA Designated Fed'l Official

Stephen Gill, NOAA Preface; Exec. Summ.; , Lead Chap. 1; Contrib., Chap. 2; Part II Overview; Lead, Chap. 7; Lead, Chap. 9; Chap. 13;			Margaret Davidson, NOAA (Chairperson)
	Duncan Fitzgerald Boston Univ. Contrib., Chap. 1		
Virginia Burkett, USGS Contrib., Chap. 1			
James Samenow, EPA Contrib., Chap. 1			
	Denise Reed ** Univ. of New Orleans Lead, Chap. 4;		
	Alexander Kolker** Louisiana Univs. Marine Consortium Lead, Chap. 4;		
	Mark Brinson East Carolina Univ. Lead, Chap. 4;		
	J. Court Stevenson*** Univ. of Maryland Contrib., Chap. 4;		
	Stanley Riggs*** East Carolina Univ. Contrib., Chap. 4;		
	Robert Christian East Carolina Univ. Contrib., Chap. 4;		
	Enrique Reyes East Carolina Univ. Contrib., Chap. 4;		
	Christine Voss East Carolina Univ. Contrib., Chap. 4;		
	David Kunz East Carolina Univ. Contrib., Chap. 4		
	Ann Schellenbarger Jones Industrial Economics, Inc Chap. 5;		
	Christina Bosh Industrial Economics, Inc. Chap. 5;		
	Elizabeth Strange Stratus Consulting, Inc. Chap. 5;		
	Michael Craghan Middle Atlantic Ctr for Geog/Enviro Chap. 6;		

Robb Wright, NOAA Lead, Chap. 7;			
Robert Kafalenos, USDOT Contrib., Chap. 7;			
	Kevin Wright ICF Int'l, Inc. Contrib., Chap. 7;		
Doug Marcy, NOAA Lead, Chap. 9;			
	Zoe Johnson Maryland Dept. of Nat'l Resources Contrib., Chap. 9; Appendix 1, Sec. F		Gwynne Schultz, Maryland Dept. of Natural Resources
	James Neumann Industrial Economics, Inc. Contrib., Chap. 10		
			Andrew Garcia U.S. Army Corps Engineers

*There were additional author-contributors for Appendix 1, Sections A-G.

**These individuals, among others, presumably participated in the development of a panel assessment incorporated into the body of Chapter 3. *See* SAP4.1, Acknowledgements p. vii.

***These individuals, among others, presumably participated in the development of a panel assessment incorporated into the body of Chapter 4. *Id.* This panel assessment had been performed “under contract to U.S. EPA with James G. Titus as the project officer” (emphasis added). *Id.*

Appendix: 7B
Technical Expert Reviewers*
EPA-Developed
USCRP/CCSP SAP4.1

U.S. Gov't Scientist	Other Scientist or Official	Entity Affiliation	Entity Participation in EPA Star Grant-Funded Programs	Affiliated With Author-Contributor or Federal Advisory Committee (CESLAC) Member
	Fred Anders	New York Dept. of State		
	Mark Davis	Tulane Univ.		
	Leslie Ewing	Calif. Coastal Commission		
	Janet Freedman	Rhode Island Coastal Res. Council		
Vivien Gornitz, NASA				
	Ellen Hartig	NYC Dept. Parks & Recreation		
	Maria Honeycutt AGI Cong. Fellow			
	Kurt Kalb	NJ Dept. of Environmental Protect		
	Stephen Leatherman	Florida Int'l Univ.		
	Ken Miller	Maryland Dept. of Nat'l Resources		Gwynne Schultz, Maryland Dept. of Natural Resources
	Jim O' Connell	Univ. of Hawaii, Sea Grant Prog.	<u>YES</u>	
Richard Osman, Smithsonian Inst.				
Mac Perry, U.S. Census Bureau				
Chris. Spaur U.S. Army Corps Engineers				Andrew Garcia U.S. Army Corps Engineers
	John Teal	Teal Partners		
	John Thayer	NC Dept. of Enviro. & Nat'l Res.		
	Dan Trescott	Southwest Florida Reg. Plan Coun.		
	John Whitehead	Appalachian State Univ.		
	Rob Young	Western Carolina Univ.		
Eric Constance, USGS (Chap. 2 review)				
Todd Davison, NOAA (Chap. 2 review)				
Jerry Johnston, EPA (Chap. 2 review)				

* See SAP4.1, at Acknowledgements, p. vi.

Appendix: 8A
Author-Contributors
USGCRP/CCSP SAP4.6

USG Scientist/Agency Scientist/Other Gov't	Scientist/Entity Affiliation	Entity Participation in EPA Grant- Funded Program	Affiliated With Federal Advisory Committee (HICCAC) Member
Janet Gamble, EPA Conv. Lead Exec. Summ.; Conv. Lead, Chap. 1;			
	Kristie Ebi, ESS LLC Lead, Exec. Summ.; Lead, Chap. 1; Lead, Chap. 2; Lead, Chap. 5;		
	Frances Sussman Enviro Economics Consulting Lead, Exec. Summ.; Lead, Chap. 1; Lead, Chap. 4; Lead Chap. 5;		
Thomas Wilbanks, DOE Lead, Exec. Summ.; Lead Chap. 1; Lead, Chap. 3; Lead, Chap. 5;			
	Colleen Reid, ASPH Fellow Contrib., Exec. Summ.; Contrib., Chap. 1; Contrib., Chap. 5;		
John Thomas, EPA Contrib., Exec. Summ.; Contrib., Chap. 1; Contrib., Chap. 5;			
Christopher Weaver, EPA Contrib., Exec. Summ.; Contrib., Chap. 1; Contrib., Chap. 5;			
	Melinda Harris, ICF Int'l, Inc. Contrib., Exec. Summ.;		
	Melinda Harris, ICF Int'l, Inc. Contrib., Exec. Summ.;		
Anne Grambsch, EPA Lead, Chap. 1; Conv. Lead, Chap. 5;			
	Katherine Hayhoe, Texas Tech Univ. Contrib., Chap. 1;		
	John Balbuls, Enviro Defense, Contrib., Chap. 2;		
	Patrick Kinney, Columbia Univ., Contrib. Chap. 2;		
	Erin Lipp, Univ. of Georgia Contrib., Chap. 2;		
	David Mills, Stratus Consulting		

	Contrib., Chap. 2;		
	Marie O'Neill, Univ. of Michigan Contrib., Chap. 2;		
	Mark Wilson, Univ. of Michigan Contrib., Chap.2;		
	Paul Kirshen, Tufts Univ. Contrib., Chap. 3;		
Dale Quattrochi, NASA Contrib., Chap. 3;			
Patricia Romero-Lankao, NCAR, Contrib., Chap. 3;			
Cynthia Rosenzweig, NASA Contrib., Chap. 3;			
	Matthias Ruth, Univ. of Maryland Contrib., Chap. 3;		
	Maureen Cropper, Univ. of Maryland Contrib., Chap. 4;		
	William Solecki, Hunter College Contrib., Chap. 3;		
	Joel Tarr, Carnegie Mellon Univ. Contrib., Chap. 3;		
	Hector Galbraith, Galbraith Enviro Sciences, LLC Contrib., Chap. 4;		
	David Godschalk, Univ. of NC Contrib., Chap. 4;		
	John Loomis, Colorado State Univ. Contrib., Chap. 4;		
	Sammy Zahran, Colorado State Univ. Contrib., Chap. 4;		
George Luber Centers for Disease Control			
Michael McGeehin Centers for Disease Control			
	James Neumann, Indus. Economics In Contrib., Chap. 4;		
	W. Douglass Shaw, Texas A&M Univ. Contrib., Chap. 4;		

Appendix: 8B
EPA External Peer Review Panel/
HICCAC Federal Advisory Committee
For USCRP/CCSP SAP4.6

Non-U.S. Gov't Scientist	U.S. Gov't Scientist	Entity Affiliation	Entity Participation in EPA Grant-Funded Programs	Affiliated With Author-Contributor or Fedl' Advisory Committee Member To SAP4.1
Tom Dietz		Michigan State Univ.	<u>YES, YES</u>	
Barbara Entwisle		Univ. of NC	<u>YES</u>	
	Howard Frumkin	Ctr for Disease Control		
Peter Gleick		Pacific Inst.		
Jonathan Patz		Univ. of Wisconsin	<u>YES, YES, YES</u>	
	Roger Pulwarty	NOAA		
Eugene Rosa		Washington State Univ.	<u>YES, YES</u>	
Susan Stonich		UC Santa Barbara	<u>YES</u>	

Appendix: 9A
Author-Contributors
USGCRP/CCSP SAP4.4

USG Scientist/Agency Scientist/Other Gov't	Non-USG Scientist	Scientist/Entity Affiliation	Participation in EPA Grant- Funded Program	Affiliated with Federal Advisory Committee (ACSERAC) Member
Jill Baron (Contrib., Chap. 1; Lead, Chap. 4; Lead Annex A & Nat'l Parks Case Study; Lead, Annex B		USGS/Colorado State Univ.		
	Peter Kareiva (Contrib., Chap. 1; Lead, Chap. 9	The Nature Conservancy		
	Margaret Palmer (Contrib., Chap. 1; Lead, Chap. 6; Lead, Annex A & Rivers Case Study; Lead, Annex B	Univ. of Maryland		Elizabeth Malone DOE Joint Global Research Institute/ Univ. of Maryland
	Louis Pitelka (Contrib., Chap. 9	Univ. of Maryland		Elizabeth Malone DOE Joint Global Research Institute/ Univ. of Maryland
	Charles Peterson (Contrib., Chap. 1; Lead, Chap. 7; Lead Annex A; Lead Annex B	Univ. of North Carolina		
Michael Scott (Contrib., Chap. 1; Lead, Annex A; Lead Annex B		USGS/Univ. of Idaho		
	Erica Fleishman (Contrib., Chap. 4;	Univ. of So. California		
	Lance Gunderson (Contrib., Chap. 4;	Emory Univ.		
	Laura Meyerson (Contrib., Chap. 4;	Univ. of Rhode Island		
	Jill Oropeza (Contrib., Chap. 4;	Colorado State Univ.		
	Robert Fischman (Contrib., Chap. 5;	Indiana Univ. School of Law		
	Patrick Gonzalez (Contrib., Chap. 5;	The Nature Conservancy		
	Anna Pidgorna (Contrib., Chap. 5;	Univ. of Idaho		

	Dennis Lettenmaier (Contrib., Chap. 6;	Univ. of Washington		
	N. LeRoy Poff (Contrib., Chap. 6;	Colorado State Univ.		
	Sandra Postel (Contrib., Chap. 6;	Global Water Policy Project		
	Brian Richter (Contrib., Chap. 6;	The Nature Conservancy		
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* There were additional author-contributors for Annexes A and B.

Appendix: 9B
EPA External Peer Review Panel/
ASCERAC Federal Advisory Committee
For USCRP/CCSP SAP4.4

Non-U.S. Gov't Scientist	U.S. Gov't Scientist	Entity Affiliation	Entity Participation in EPA Grant-Funded Programs	Affiliated With Author-Contributor
Paul Risser (Chair)		Univ. of Oklahoma	YES	
Reed Noss (Vice-Chair)		Univ. of Central Florida		
Joe Arvai		Michigan State Univ.	YES, YES	
Eric Gilman		IUCN Global Marine Program		
Carl Hershner		Virginia Inst. of Marine Science	YES	
George Hornberger		Univ. of Virginia		
Elizabeth Malone		DOE Joint Global Research Institute/ Univ. of Maryland	YES	Margaret Palmer, Louis Pitelka – Univ. of Maryland
David Patton		Univ. of Arizona	YES	
Daniel Tufford		Univ. of South Carolina	YES	
Robert Van Woesik		Florida Inst. of Tech.		
	Joanna Foellmer, EPA (Designated Fed'l Official)			
	Janet Gamble, EPA (Designated Fed'l Official)			

ENDNOTES

¹ See, e.g. Wendy Koch, *EPA Seeks 30% Cut in Power Plant Carbon Emissions by 2030*, USA Today (June 3, 2014), available at: <http://www.usatoday.com/story/money/business/2014/06/02/epa-proposes-sharp-cuts-power-plant-emissions/9859913/>.

² See United States Environmental Protection Agency, *Notice of Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units and Solicitation for Public Comments*, 79 FR 34830 et seq. (June 18, 2014), available at: <http://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf>; United States Environmental Protection Agency, *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units – Notice of Data Availability*, 79 FR 64543 (Oct. 30, 2014), available at: <http://www.gpo.gov/fdsys/pkg/FR-2014-10-30/pdf/2014-25845.pdf>.

³ See United States Department of Commerce, National Oceanic and Atmospheric Administration, *Global Climate Change Impacts in the United States* (Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009), available at: <http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf>.

⁴ See Michael Bastach, *Legal Expert: EPA's CO2 Rule Violates Federal Data Quality Law*, The Daily Caller (Aug. 14, 2014), available at: <http://dailycaller.com/2014/08/14/legal-expert-epas-co2-rule-violates-federal-data-quality-law/>; Jonathan Rowland, *ITSSD Responds to EPA's Power Plant Rule*, WorldCoal.com (Aug. 15, 2014), available at: <http://www.worldcoal.com/news/power/articles/World-Coal-ITSSD-responds-to-EPAs-power-plant-rule-coal1217.aspx#.VH0pDvnF-Sp>; InsideEPA, *Group Targets GHG Risk Finding Via ESPS*, InsideEPA.com (Aug. 18, 2014), available at: <https://nebula.wsimg.com/e4e2c356fe52cc8b48ba9e7b47790cf4?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1>.

⁵ See InsideEPA, *Group's NOAA FOIA Request Expands GHG Risk Finding Fight*, InsideEPA.com (Sept. 22, 2014), available at: <https://nebula.wsimg.com/5e890d840d33ed7349a12718552dabab?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1>; Lawrence Kogan, *Climate Change Chicanery And The Federal Agency-Academic Complex*, The Daily Caller (Sept. 26, 2014), available at: http://dailycaller.com/2014/09/26/climate-change-chicanery-and-the-federal-agency-academic-complex/#disqus_thread; Jonathan Rowland, *ITSSD Steps Up Battle Against GHG Endangerment Finding*, WorldCoal.com (Sept. 30, 2014), available at: http://www.worldcoal.com/news/power/articles/World-Coal-ITSSD-challenges-the-the-legality-of-the-scientific-basis-for-EPA-greenhouse-gas-regulation-coal1375.aspx#.VH0qS_nF-Sp.