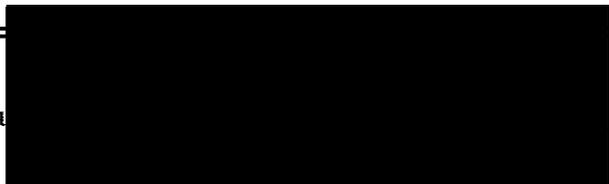


Committee on Energy and Commerce
U.S. House of Representatives

Witness Disclosure Requirement - "Truth in Testimony"
Required by House Rule XI, Clause 2(g)

1. Your Name: <i>David Cash</i>		
2. Are you testifying on behalf of the Federal, or a State or local government entity?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. Are you testifying on behalf of an entity that is not a government entity?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Other than yourself, please list which entity or entities you are representing: <i>Massachusetts Department of Environmental Protection</i>		
5. Please list any Federal grants or contracts (including subgrants or subcontracts) that you or the entity you represent have received on or after October 1, 2012: <i>Please see attached</i>		
6. If your answer to the question in item 3 in this form is "yes," please describe your position or representational capacity with the entity or entities you are representing:		
7. If your answer to the question in item 3 is "yes," do any of the entities disclosed in item 4 have parent organizations, subsidiaries, or partnerships that you are not representing in your testimony?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8. If the answer to the question in item 3 is "yes," please list any Federal grants or contracts (including subgrants or subcontracts) that were received by the entities listed under the question in item 4 on or after October 1, 2012, that exceed 10 percent of the revenue of the entities in the year received, including the source and amount of each grant or contract to be listed:		
9. Please attach your curriculum vitae to your completed disclosure form.		

Signature



Date:

7/21/14

<u>FUNDING AGENCY</u>	<u>FED ID ACCOUNT#</u>	<u>GRANT NAME</u>	<u>AWARD DATE</u>	<u>AWARD AMOUNT</u>
EPA	C6001003-13	Water Quality 205J	08/13/13	458,000
EPA	C6001003-14	Water Quality 205J	06/18/14	481,000
EPA	WP97173601-7	Tech Asst. Training Drinking Water	09/18/13	211,200
EPA	F-96137301-3	Ground Water	07/11/13	91,063
EPA	V99174205-3	Superfun Block Grant	06/18/13	2,709,550
EPA	V96172401-0	MSCA	07/30/13	225,000
EPA	RP-96173601	Brownsfield Response	09/09/13	1,120,644
EPA	PM99129003-7	PM 2.5 Air	04/23/14	3,184,954
EPA	XA98145902-5	National Air Toxic	08/19/13	775,000
DHS	2006-ST-091-000001-07	Bio Watch	01/30/13	1,535,222
DHS	2006-ST-091-000001-08	Bio Watch	12/04/13	1,600,111
EPA	DS-97189001-8	Diesel Emission Reduction	11/28/12	1,289,835
EPA	L00160213-0	UST Prevention	08/28/13	511,000
EPA	L00160211-3	UST Prevention	04/23/14	611,000
EPA	L00160210-2	UST Prevention	10/26/12	575,000
EPA	DE-96150201-3	DERAMA Clean Diesel	08/23/13	373,750
EPA	XA-96145901-2	Airport Lead Ambient	09/18/13	78,764
EPA	XA-96158001-2	NO2 Near Road Air Monitoring	03/01/13	400,000
EPA	DE-96173201	DERA	09/09/13	123,405
EPA	LS98137008	LUST 14	09/03/13	2,100,000
DOD	W912DY-12-2-0223	DOD	02/05/13	1,319,000
EPA	G11AC20283	National Hydrography	09/13/13	50,000
EPA	LS98137007-2	LUST 13	07/11/13	1,895,000
EPA	HC-96146601-1	Healthy Communities	06/12/13	39,235
EPA	BG99187810-3	PPG 13	08/05/13	12,957,119
EPA	BG99187810-3	PPG 13 Amendment	08/29/13	209,762
EPA	BG99187810-4	PPG 14	12/30/13	3,379,181
EPA	BG99187810-4	PPG 14 Amendment	03/25/14	3,588,942

DAVID W. CASH, PH.D.

Commissioner
Massachusetts Department of Environmental Protection
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Newton, MA 02459
(617) 794-9431 (cell)
dcash35@gmail.com

PROFESSIONAL EXPERIENCE

Commissioner, Department of Environmental Protection (DEP), Commonwealth of Massachusetts (March, 2014 – present)

- Develop and implement nation-leading environmental, clean energy, climate change, water and waste management regulatory programs, with a focus on environmental policy that drives economic development.
- Manage staff of ~800 and budget of >\$100M.

Commissioner, Department of Public Utilities (DPU), Commonwealth of Massachusetts (June, 2011 – March, 2014)

- Responsible for oversight of investor-owned electric power, natural gas, and water utilities, overseeing staff of 150 and budget of \$19M.
- Developed innovative renewable energy, energy efficiency, climate change and grid modernization efforts.
- Member of National Association of Regulatory Utility Commissioners; participated in NARUC/USAID delegation to Tanzania and Ghana to assist in developing clean energy legislation and regulations.

Undersecretary for Policy, Executive Office of Energy and Environmental Affairs (EEA), Commonwealth of Massachusetts (January, 2011 – June, 2011); **Assistant Secretary for Policy** (January, 2007 – January, 2011)

- Advised the Secretary of Energy and Environment on a wide array of environmental and energy issues including climate change, ocean and coastal zone management air and water quality, fisheries, clean energy development, land management, water management, wildlife, transportation, environmental justice, toxics, and waste management.
- Managed complex interagency and multi-stakeholder science-driven policy, regulatory and program development for clean energy, solid waste management, sustainable water management, and fisheries.
- On senior team that drafted and shepherded passage of ground-breaking energy and environmental legislation: *Green Communities Act*, *Green Jobs Act*, and *Global Warming Solutions Act*, *Oceans Act*.
- Led development of the *Massachusetts Clean Energy and Climate Plan for 2020*.
- Engaged in media and public speaking on behalf of EEA and the Patrick administration through radio, TV, web and print, and assisted in communication plans, speeches, and press releases for the Secretary and Governor.
- Oversaw interagency staff and collaborated with nine other northeastern states in the development of the Regional Greenhouse Gas Initiative (RGGI) – the nation's first CO₂ cap-and-trade program; served as point person for the development of a northeast regional low carbon fuel standard.

Director of Air, Energy & Waste Policy, Executive Office of Environmental Affairs (EOEA), Commonwealth of Massachusetts (July, 2005 – December, 2006); **Director of Air Policy**, (September, 2004 – July, 2005)

- Policy director for the Secretary of Environmental Affairs on array of air, energy and waste related issues including mobile, stationary and area sources of air emissions, and local, regional, national and global air quality, recycling policy, solid waste management, and renewable energy; managed interagency staff teams.
- Created strategic science-based policy that integrated air, water, land, and energy efforts.
- Lead EOEA analyst in the negotiations and development of the Regional Greenhouse Gas Initiative (RGGI).

Lecturer in Environmental Science and Public Policy, Harvard University, Cambridge, MA (2002–2004)

- Developed new introductory course in Environmental Science and Public Policy focusing on interdisciplinary political, economic and scientific analysis of domestic and international environmental and energy issues.

Research Fellow, Environment and Natural Resource Program/Center for International Development/Center for Science and International Affairs, Kennedy School of Government, Harvard University, Cambridge, MA (1996–2004)

- Conducted research and application of the role of science in environmental and technology policy with a focus on energy, water management, climate change, and biodiversity in both domestic U.S. and developing country contexts;

identified effective strategies for U.S and developing country partnerships; consulted with international scientific bodies (e.g., Consultative Group on International Agricultural Research, Southern African Development Community, Zimbabwe Meteorological Services) and U.S. federal agencies (e.g., EPA, NOAA, USGS).

Global Environment Policy Intern, White House, Council on Environmental Quality, Washington, D.C. (1995)

- Drafted policy briefs on international issues such as climate change, biodiversity, ozone and environmental security for Associate Director for the Global Environment.

Science Teacher, Public Schools, Amherst, MA and Portland, OR (1989–1993)

- In addition to standard curriculum, developed curriculum based on science, technology and values.
-

OTHER RELEVANT PROFESSIONAL ACTIVITIES

Published numerous professional, peer-reviewed academic and lay articles, and book chapters (see attached Appendix for complete list): e.g., *Proceedings of the National Academy of Sciences; Ecology and Society; Science, Technology, and Human Values; Journal of Behavioral Decision Making; Environment; Global Environmental Change; and MIT Press.*

Public speaking: delivered keynote addresses, speeches and presentations at diverse venues (see attached Appendix for complete list): e.g., *2012 Berlin Conference on the Human Dimensions of Global Environmental Change; National Conference of State Legislatures; Northeast Sustainable Energy Association; Environmental Business Council.*

Editor and reviewer for academic and professional journals, magazines, and federal grant programs (NOAA, EPA, NSF).

Recipient of awards and fellowships from EPA, Environmental League of Massachusetts, Harvard University, Institute for the Study of World Politics, Howard Hughes Foundation, Earthwatch, and the Environmental Leadership Program.

EDUCATION

Harvard University, Kennedy School of Government, Cambridge, MA (1994–2001)

Degree: Ph.D. in Public Policy, June, 2001. Concentration in Environment and Natural Resources.

Lewis and Clark College Graduate School of Professional Studies, Portland, OR (1989–1990)

Degree: M.A.T., Science Education; August, 1990.

Honors: Recipient of Murdock Science Education Scholarship; Graduation class speaker.

Yale University, New Haven, CT (1983–1987)

Degree: B.S. (Intensive), Biology; May, 1987.

Honors: Cum Laude, Henry E. Ellsworth Prize for Senior Research.

Appendix – Publications and Presentations

PUBLICATIONS

Refereed journal articles

- Buizer, J., K. Jacobs, D.W. Cash (2010) *Making short-term climate forecasts useful: linking science and action*. Proceedings of the National Academy of Sciences of the United States of America, doi:10.1073/pnas.0900518107.
- Cash, D.W., W. Adger, F. Berkes, P. Garden, L. Lebel, P. Olsson, L. Pritchard, and O. Young. (2006) *Scale and cross-scale dynamics: governance and information in a multilevel world*. Ecology and Society, 11(2): 8.
- Cash, D.W., J. C. Borck and A. G. Patt (2006) *Countering the "loading dock" approach to linking science and decision making: comparative analysis of ENSO forecasting systems*. Science, Technology, and Human Values, Science, Technology, and Human Values, 31, pp. 465-494.
- Patt, A., Bowles, H.R., and D.W. Cash, (2006) *Mechanisms for enhancing credibility of an advisor: prepayment and aligned incentives*. Journal of Behavioral Decision Making, 19: 347–359
- Cash, D.W. (2003) *Nebraska's Natural Resources Districts: a model for linking science and management for sustainable development?* Environment, 45:10, pp 8-20.
- Cash, D.W., W. C. Clark, F. Alcock, N. M. Dickson, N. Eckley, D. Guston, J. Jäger and R. Mitchell (2003): *Knowledge systems for sustainable development*. Proceedings of the National Academy of Sciences of the United States of America 100: 8086-8091.
- Cash, D.W. (2001) *"In order to aid in diffusing useful and practical information": boundary organizations and agricultural extension*. Science, Technology, and Human Values, 26:4, pp. 431-453.
- Cash, D.W. (2000) *Distributed assessment systems: an emerging paradigm of research, assessment and decision-making for environmental change*. Global Environmental Change, 10:4, pp. 241-244.
- Cash, D.W. and S.C. Moser (2000) *Linking global and local scales: designing dynamic assessment and management processes*. Global Environmental Change, 10:2, pp. 109-120.
- Cash, D. and Carew, T.J. (1989) *A Quantitative Analysis of the Development of the Central Nervous System in Juvenile *Aplysia californica**. Journal of Neurobiology, 20:1, 25-47.

Book Chapters and Edited Book

- Clark, W., R. Mitchell, D.W. Cash and F. Alcock (2006). *Information as influence: how institutions mediate the impact of scientific assessments on global environmental affairs*. Global environmental assessments: information, institutions, and influence. R. Mitchell, W. Clark, D. W. Cash and F. Alcock, eds. Cambridge, MA, MIT Press.
- Mitchell, R., W. Clark, D.W. Cash and F. Alcock, eds. (2006). Global environmental assessments: information, institutions, and influence. Cambridge, MA, MIT Press.
- Cash, D.W. (2006). *Mining water, drying wells: multi-level assessment and decision making for water management*. Global environmental assessments: information, institutions, and influence. R. Mitchell, W. Clark, D. W. Cash and F. Alcock, eds., Cambridge, MA, MIT Press.
- Polsky, C. and D.W. Cash (2005) *Reducing Vulnerability to the Effects of Global Change: Drought Management in a Multi-Scale, Multi-Stressor World* in Drought and Water Crises: Science, Technology, and Management Issues, D. Wilhite, ed. Amsterdam, Marcel Drekker, pp.215-245.
- Cash, D.W. (2003) *Adaptation to Challenges in The Commons in the New Millennium: Challenges and Adaptation*, N. Dolšak and E. Ostrom, eds., with N. Dolšak, E.S. Brondizio, L. Carlsson, C.C. Gibson, M.J. Hoffman, A.Knox, R. Meinzen-Dick, and E. Ostrom. Cambridge, MA, MIT Press.

Cash, D.W. (2001) *Science, politics and environmental risk: regulatory decision making in the U.S. Endangered Species Act in Endangered Species Protection in the United States: Biological Needs, Political Realities, and Economic Consequences*, J. Shogren and J. Tschirhart, eds., Cambridge, UK, Cambridge University Press.

Working papers

- Cash, D.W. (1998) *Assessing and addressing cross-scale environmental risks: information and decision systems for the management of the High Plains aquifer*. BCSIA Discussion Paper E-98-17, JFK School of Government, Harvard U.
- Cash, D.W. and S. C. Moser (1998) *Information and decision making systems for the effective management of cross-scale environmental problems: a theoretical concept paper*. Background paper for the workshop "Local Response to Global Change: Strategies of Information Transfer and Decision Making for Cross-Scale Environmental Risks", BCSIA, JFK School of Government, Harvard University.
- National Center for Environmental Decision-Making Research (1998) *Stakeholder participation in the US National Assessment of Possible Consequences of Climate Variability and Change: Suggested guidelines for doing it right*. Technical Report NCEDR/98-19. Oakridge, TN: ORNL, TVA, Univ. of Tennessee, (contributor).
- Cash, D.W., (1997) *Local Response to Global Change: Creating Effective Bridges between Science, Policy and Action*, Briefing document for the workshop on Regional Climate Change Impacts on Great Plains Ecosystems, Colorado State University, April 1997.
- Cash, D.W. (1996) Book review of *The Economics and Ecology of Biodiversity Decline: The Forces Driving Global Change* by Timothy M. Swanson. *The Journal of Economic Literature*, 34: 2002-3.

ACADEMIC PRESENTATIONS

- So What? Do you believe it? Was it fair?: Producing Salient, Credible and Legitimate Science* Pardee Keynote Symposia, Geological Society of America Annual Meeting, Salt Lake City, Utah, October, 2005
- S&T Private-Public Partnerships for Sustainable Development: Toward What End? With What Means?* Open Meeting of the Human Dimensions of Global Change Research Community, Montreal, Canada, October, 2003.
- Linking Science to Policy: Institutional Dimensions of Global Environmental Assessments*. Open Meeting of the Human Dimensions of Global Change Research Community, Montreal, Canada, October, 2003.
- Science in the Crucible: The Changing Role of Research in Natural Resource and Environmental Management*, Invited speaker, the U.S. Geological Survey, Science Impact Seminar, Reston, VA, June 12, 2003.
- Integrating information across agencies and disciplines: hard data to inform policy*, Invited speaker, the U.S. House of Representatives Select Committee on Homeland Security, Staff Briefing, Washington, D.C., June 12, 2003.
- Science and Technology for Sustainable Development*, Invited speaker, the International Research Institute for Climate Prediction, Columbia University, Palisades, New York, April 8, 2003.
- S&T and Global-Local Institutions in a Globalizing World*, The Research Symposium with the Next Generation of Leaders in Science and Technology Policy, Washington, D.C., November 23, 2002.
- The Road from Johannesburg: Science, Technology and Sustainable Development*, Invited Speaker, Yale School of Forestry, Tropical Resources Institute, New Haven, CT, October 10, 2002.
- The Institutional Challenges of Producing Salient, Credible, and Legitimate Regional Integrated Assessments*, Invited Speaker, International Workshop on Regional Integrated Assessment of Climate Impacts, Il Ciocco, Italy, September 16-20, 2002.
- Science & Technology and the Sustainability Transition*, Invited Speaker, Industrial Ecology Gordon Research Conference, Colby-Sawyer College, New London, NH, June 13, 2002.

- Integrating Information and Decision Making in a Multi-Level World.* Invited speaker. Stanford University, Center for Environmental Science and Policy Environmental Forum, October, 2001
- Matching social and biogeophysical systems: challenges for designing information systems which link local through global knowledge, research, and assessment.* Open Meeting of the Human Dimensions of Global Change Research Community, Rio de Janeiro, Brazil, October, 2001.
- Local Responses to Global Change.* Invited panel discussant. Open Meeting of the Human Dimensions of Global Change Research Community, Rio de Janeiro, Brazil, October, 2001.
- Linking Global Change and Local Realities: Distributed Research, Assessment, and Decision Making Systems.* Panel Chair and Discussant. Open Meeting of the Human Dimensions of Global Change Research Community, Rio de Janeiro, Brazil, October, 2001.
- Distributed Research, Assessment and Decision Support Systems.* Invited presenter. National Research Council, Committee on Global Change Research Meeting, Washington, D.C., April, 2001.
- Cross-scale Information and Decision Making Systems for Common Pool Resources: Water Management of the Ogallala Aquifer in the U.S. Great Plains.* The International Association for the Study of Common Property (IASCP), 2000 Conference "Constituting the Commons: Crafting Sustainable Commons in the New Millennium", Indiana University, Bloomington, Indiana, June, 2000.
- Linkage Across Levels of Organization.* Invited panel discussant. IASCP, 2000 Conference "Constituting the Commons: Crafting Sustainable Commons in the New Millennium", Bloomington, Indiana, June, 2000.
- "In order to aid in diffusing useful and practical information": Boundary Organizations and Agricultural Extension.* Invited presenter. Workshop on Boundary Organizations in Environmental Policy and Science, Rutgers University, New Brunswick, NJ, December, 1999.
- Institutions for Cross-Scale Environmental Risks: A Comparative Analysis of Water Resource Management Regimes within the U.S. Great Plains.* 1998 Annual Meeting of the American Political Science Association, Boston, MA, September, 1998.
- An Empirical Evaluation of the Effectiveness of Possible Strategies for the Assessment of Global Environmental Change: A Bottom-Up Approach Towards Useful Integrated Assessments.* Great Plains Regional Center - National Institute for Global Environmental Change, U.S. Department of Energy, Lincoln, NE, April, 1998.
- Local Response to Global Change: Constructing Effective Environmental Information and Decision Making Systems in US Agriculture.* National Conference on Environmental Decision Making, National Center for Environmental Decision-making Research, Knoxville, TN, May, 1998.
- Science, Politics and Risk: Regulatory Decision Making in the Endangered Species Act.* Invited presenter. Social Order and Endangered Species Act Conference at the University of Wyoming, Laramie, WY, April, 1997.
- Science, Technology, and Society: Examining Decision-making through Role-plays.* National Association of Biology Teachers National Convention, Boston, MA, November, 1993.

SPEECHES, KEYNOTES AND PRESENTATIONS (partial list)

Speeches representing the MA Department of Public Utilities and the Executive Office of Energy and Environmental Affairs

WHOI/MIT Joint Panel on Science and Policy-Making; ISO-New England; New England's Consumer Liaison Group; National Council of State Legislatures; Energy Storage Association; Solar Power International; National Association of Utility Commissioners; MIT Crowds and Climate Conference; Law Seminars International; 2012 Berlin Conference on the Human Dimensions of Global Environmental Change; Platts 2012 Transmission Planning and Development; Northeast Fisheries Summit, New Bedford; New England Conference of Public Utilities Commissioners; National Governors Association; Harvard Electricity Policy Group; Electricity Restructuring Roundtable; Association of Energy Engineers Energy Outlook Forum; New England Energy Conference and Exposition; Brandeis Clean Energy Conference; Urban Land Institute,

Boston in 2050; Clark University, National Teach-In on Global Warming Solutions; Israeli Consulate, Ending Oil Dependency with New Models of Transportation; European Union Commission for the Environment Panel on Climate and Energy; Governors' Global Climate Summit, California; Environmental Business Council; University of Massachusetts at Amherst Global Climate Change/Transport Symposium; New England Public Finance Conference; Northeast Energy Efficiency Council and the Association of Energy Service Professionals; American Institute of Chemical Engineers; Massachusetts Climate Action Network; Solar Energy Business Association of New England; Green Cities Conference; Northeast Urban Observation Network; MIT New Ecology, Inc., Sustainable Development Forum; Western Massachusetts Energy Forum; Northeast Sustainable Energy Association; Energy Restructuring Roundtable; FutureBOSTON: Designing Competitive Edge in the Global Economy; Boston Bar Association; New England School of Law; Northeast Energy and Commerce New England Energy Conference; The Council of Governments, Eastern Regional Conference - The Energy Challenge for the Northeast.

OTHER PUBLICATION/PRESENTATION ACTIVITIES

Reviewer:

Journal of Environmental Planning & Management
Science, Technology, and Human Values
Ecosystems
Science and Public Policy
Rowman & Littlefield Publishers
National Research Council, Committee on the Human Dimensions of Global Change

Grant reviewer:

Environmental Protection Agency, Global Change Research Program, Office of Research and Development
National Oceanic and Atmospheric Administration, Office of Global Programs
National Science Foundation/Environmental, Social and Behavioral Sciences Unit

Invited Guest Lecturer:

Boston University, Geography and Environmental Studies
Boston University Law School, Advanced Environmental Law
Clark University, Department of Geography
Hampshire College, U.S. Climate Law and Policy
Harvard University, Environmental Science and Public Policy
Massachusetts Institute of Technology, Environmental Policy and Planning
Northeastern University, Policy Advice to the Next President
Olin College, Environmental Studies
Wellesley College, Environmental Studies
Yale University, School of Forestry and Environmental Studies