

CSTPR 2012

Annual Report
January 1 - December 31, 2012

Creating new knowledge and improving the ways by which
science and technology policies address societal needs

Center for Science and Technology Policy Research
Cooperative Institute for Research in Environmental Sciences
University of Colorado Boulder

CENTER FOR
SCIENCE & TECHNOLOGY
POLICY RESEARCH



University of Colorado
Boulder

CENTER & FOR SCIENCE & TECHNOLOGY POLICY RESEARCH

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CSTPR ANNUAL REPORT

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PAGE 1 | INTRODUCTION

PAGE 1 | LETTER FROM THE DIRECTOR

PAGE 2 | THE CENTER AT A GLANCE

PAGE 3 | HIGHLIGHTS

Center Celebrates 10 Years of Science and Technology
Policy Research

Center Contributes to Southwest Climate Assessment

PAGE 5 | CENTER FACULTY

PAGE 9 | RESEARCH

PAGE 15 | EDUCATION

PAGE 17 | OUTREACH

PAGE 19 | CENTER PERSONNEL

PAGE 27 | APPENDIX

Publications
Talks and Events
Media References
Service Activities
Grant Activity



INTRODUCTION

The Center for Science and Technology Policy Research (CSTPR) was established within CIRES in 2001 to conduct research, education, and outreach at the interface of science, technology, and the needs of decision makers in public and private settings. The Center focuses considerable attention on the intersection of the environment and society, where it applies the social and policy sciences to problems of environmental change, management, and sustainability. The Center's research is integrated with the ongoing activities of CIRES, NOAA, CU-Boulder, and the broader science and technology community.

LETTER FROM THE DIRECTOR

The Center for Science and Technology Policy Research celebrated 10 years in 2012, and Center staff, faculty, affiliates, alumni and others gathered on campus in September to mark the occasion. We were pleased to have Susan Avery visit from Woods Hole, where she is president of the WHOI; Susan was the director of CIRES when the Center was founded as the first social science unit in the institute. And we were honored to have the President's Science Advisor, Dr. John Holdren, keynote our event with a detailed look at the role of the science advisor and the Office of Science and Technology Policy in the administration's work on



challenges of energy, climate, space policy, and science education. During these ten years the nation faced increasing losses from natural disasters, critical decisions on science and technology spending, a continued debate over anthropogenic climate change, and technologies like nano robots, GMOs, and new natural gas production methods. Many of

these evaluations are not as fruitful as they could and should be, partly because science and technology debates often reflect other social and cultural issues, but also because our template for assessing technologies and making decisions under uncertainty is flawed in several ways. Sometimes the problem is insufficient information, and only more research and a tincture of time, plus outreach and accurate media attention, will illuminate the challenges and choices. In other cases the problem is the decision-making frame, and the difficulty we all have recognizing the role of uncertainty and risk in affecting the outcomes. Persistent problems are often a mixture of acute events and chronic trends, like growing

exposure to natural hazards and persistent under-insurance. An event, like Hurricane Sandy, focuses our attention, as have many acute events in this past decade. But that attention fades and the big job of reducing our growing vulnerability, or adapting our infrastructure, or getting the financial instruments like insurance and disaster aid right, depends on the persistence of policy analysts and enlightened political leaders. Scholars of science and technology policy aid this work by probing conventional wisdom, making trade-offs more obvious, and pointing out illogical and often inefficient policies. The Center will continue this work, at the intersection of science, policy, and the environment over the next decade, and beyond.

Bill Travis
Director

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THE CENTER AT A GLANCE

FOR THE PERIOD JANUARY 1 - DECEMBER 31, 2012

29,616

Unique website visitors

4,290

Recipients of Center's Science Policy E Briefing

796

Subscribers to Ogmius, the Center newsletter

87

Media references to the Center and/or its personnel

70

Presentations by Center staff and students

12

Peer-reviewed publications (journal articles)

33

Other publications (non-peer reviewed)

54

Coauthors and collaborators

14

On-campus talks by non-Center personnel sponsored by the Center

20

University of Colorado courses taught by Center faculty

19 (2 degree)

Undergraduate and graduate students who worked with the Center (awarded degree)

12

Center graduate students who have graduated since 2001 (6 Ph.D.s, 4 master's, 1 master's/MBA, 1 Law)



HIGHLIGHTS

CENTER CELEBRATES 10 YEARS OF SCIENCE AND TECHNOLOGY POLICY RESEARCH

The Center celebrated its 10th anniversary in September with a gala event attended by many affiliates, alumni, and friends. It featured 4 panel discussions moderated by Max Boykoff, Lisa Dilling, Elizabeth McNie, Roger Pielke, and Bill Travis. President Obama’s science advisor, Dr. John Holdren, gave the keynote address.

The event featured a series of panel discussions in which Center affiliates, present and past, shared their experiences and perspectives on science policy with the community, highlighting areas where the Center has worked during its first decade:

“Extremes: Nature, Society and Policy”

Panelists: Shali Mohleji (American Meteorological Society Policy Program, Center alumna), Roger Pielke, Jr. (CSTPR), Kevin Vranes (E Source, Center alumnus)

Moderator: Bill Travis (CSTPR)



Shali Mohleji, Kevin Vranes, and Roger Pielke, Jr.

“Public Engagement in Science and Technology: When the Stakes are High and Debates are Lively”

Panelists: Jason Delborne (Colorado School of Mines, Center affiliate), Rebecca Safran (University of Colorado), Suzanne Tegen (NREL, Center alumna)

Moderators: Lisa Dilling and Max Boykoff (CSTPR)



Lisa Dilling, Suzanne Tegen, Jason Delborne, and Rebecca Safran

“Usable Science: The Promise and Peril of Directing Research Toward Practical Outcomes”

Panelists: Susan Avery (WHOI, Center affiliate and CIRES Director when the Center was founded), Shannon



Susan Avery, Shannon McNeeley, and Carl Mitcham

McNeeley (NCAR), Carl Mitcham (Colorado School of Mines, Center affiliate)

Moderator: Elizabeth McNie (Purdue, Center alumna and affiliate)

“Life after CSTPR”

Panelists: Shali Mohleji, Genevieve Maricle (USAID, Center alumna), Shep Ryen (former Hill staffer, Center alumnus)

Moderator: Roger Pielke, Jr. (CSTPR)

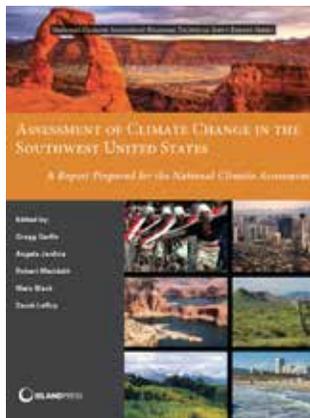


The event culminated in a keynote address by Dr. John Holdren, science advisor to President Obama, titled “Science and Technology Policy in the Obama Administration.” He was introduced by CIRES Interim Director William Lewis and Stein Sture, University of Colorado Boulder Vice Chancellor for Research. Dr. Holdren gave a detailed account of the science policy initiatives and importance of the White House Office of Science and Technology Policy, highlighting OSTP’s efforts on climate and energy, STEM education, space, and international science cooperation. Dr. Holdren is the eighth presidential science advisor since 2005 to have visited the University of Colorado Boulder at the Center’s invitation, the second of whom (in addition to Dr. John Marburger) was actively serving in that role at the time of his visit.

Videos of all 4 panels and Dr. Holdren’s talk are available at <http://sciencepolicy.colorado.edu/news/10anniversary>.



CENTER CONTRIBUTES TO SOUTHWEST CLIMATE ASSESSMENT



In an era of increasing climate instability, the southwestern United States faces strained water resources, greater prevalence of tree-killing pests, and potentially significant alterations of agricultural infrastructure. These threats and challenges as well as others are detailed in the new book, *Assessment of Climate Change in the Southwest United States*.

A hotter future is projected for the Southwestern United States—a region stretching from the California coast to the plains of eastern Colorado and New Mexico—and future heat and changes in precipitation will present challenges for managing natural resources, water, infrastructure and threats to human health.

The book, published by Island Press, is a landmark study that addresses these issues. It focuses on current climate conditions in the region, the environment of the past, what is projected to change over the 21st century and how this will impact ecosystems, water resources, agricultural production, energy supply and delivery, transportation and human health.

A consortium of researchers from the Southwest Climate Alliance coordinated the assessment and the scientists are affiliated with the National Oceanic and Atmospheric Administration’s Regional Integrated Sciences and Assessment Program and the U.S. Department of the Interior Southwest Climate Science Center. The book blends the contributions of 120 experts in climate science, economics, ecology, engineering, geography, hydrology, planning, resource management and other disciplines. The book is one of ten regional technical inputs to the 2013 National Climate Assessment released in draft form earlier this year.

Several CSTPR members made significant contributions to the new Southwest Climate Assessment, one component of the ongoing National Climate Assessment. Bill Travis co-authored Chapter 1: Summary for Decision Makers, and Chapter 3: The Changing Southwest. Lisa Dilling and Max Boykoff were co-authors of Chapter 18: Climate Choices for a Sustainable Southwest. Ami Nacu-Schmidt created the majority of the images, which weave into a graphical story across the report.

The Assessment website provides access to download full book chapters, short summaries of each chapter, and all graphics developed for the book: <http://www.swcarr.arizona.edu>.



CENTER FACULTY

MAX BOYKOFF



Max Boykoff is an assistant professor in Environmental Studies and a fellow of the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado Boulder. He also is a senior visiting research associate in the Environmental Change Institute (ECI) at Oxford University. Previously, Max was a James Martin 21st Century Research Fellow at the ECI as well as a department lecturer in the School of Geography at the Oxford University Centre for the Environment. Max has ongoing interests in environmental governance, science and policy interactions, and political economy and the environment. He has experience working in North America, Central America, South Asia and Europe. He holds a Ph.D. in Environmental Studies (with a parenthetical notation in Sociology) from the University of California-Santa Cruz and Bachelor of Sciences from Ohio State University.

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/max_boykoff

Twitter: [@boykoff](https://twitter.com/boykoff)

Highlights: Max was part of a team that received an Information, Communication, Journalism, Media and Technology grant from the University of Colorado. The project - "Climate Corps"- will focus on providing curriculum development specific to climate communication. Max, along with Lisa Dilling and Bill Travis, co-authored chapters in the new Southwest Climate Assessment, one component of the ongoing National Climate Assessment.

DESERAI ANDERSON CROW



Deserai Anderson Crow is on the Environmental Studies faculty at the University of Colorado Boulder. She is Associate Director of the Center for Environmental Journalism and affiliated with the Center for Science and Technology Policy Research. She joined the faculty of the School of Journalism and Mass Communication in 2008 and moved to the Environmental Studies

Program in 2012. She earned her Ph.D. from Duke University's Nicholas School of the Environment and Earth Sciences and a Master of Public Administration from the University of Colorado at Denver's School of Public Affairs. After earning her B.S. in Journalism from the University of Colorado Boulder, she worked as a broadcast reporter, anchor, and producer in Nebraska, West Virginia, California, Colorado Springs, and Denver.

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/deserai_crow

Highlights: Deserai developed and organized the cross-disciplinary International Conference on Culture, Politics, and Climate Change held at the University of Colorado Boulder, September 13-15, which attracted over 350 scholars. Max Boykoff, Lisa Dilling and Ben Hale moderated panel discussions.

LISA DILLING



Lisa Dilling is an assistant professor in Environmental Studies, a fellow of the Cooperative Institute for Research in Environmental Sciences (CIRES) and a

member of the Center for Science and Technology Policy Research at the University of Colorado Boulder. She studies decision making, the use of information and science policies related to climate change, adaptation, and carbon management. Her current projects examine drought in urban water systems, water governance and climate change, municipal adaptation to hazards, and public lands management in the context of climate change. Her career has spanned both research and practice arenas of the science-policy interface, including program leadership for NOAA and the U.S. Global Change Research Program. She has authored numerous articles and is co-editor of the book *Creating a Climate for Change: Communicating climate change and facilitating social change* from Cambridge University Press. She received her Ph.D. in Biological Sciences from the University of California, Santa Barbara and a B.A. magna cum laude in biology from Harvard University.

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/lisa_dilling

Highlights: Lisa, along with Max Boykoff and graduate student Meaghan Daly, launched a new internship program, "Improving Climate Change Communication and Adaptation Decision-making in the Humanitarian Sector," connecting humanitarian practitioners from the Red Cross/Red Crescent Climate Centre with science policy graduate student researchers at the University of Colorado. Lisa and Meaghan Daly (along with Mara Goldman) received a CU Innovative Seed Grant to study the processes or institutions that can support improved application of technical climate information to facilitate successful adaptation to climate related disasters.



Artist Karina Mullen illustrated what she heard in graphic form at the International Conference on Culture, Politics, and Climate Change.

BENJAMIN HALE



Benjamin Hale is an assistant professor (and, as of 2013, an associate professor) in Environmental Studies and Philosophy at the University of Colorado Boulder. He works primarily in the area of environmental ethics and environmental policy, though his theoretical interests span much larger concerns in applied ethics, normative ethics, and even metaethics. As for applied questions, much of his work centers on ethical and environmental concerns presented by emerging technologies. Before joining the Environmental Studies Program, Benjamin was the Director of the Center for Values and Social Policy in the Philosophy Department at the University of Colorado Boulder, and earlier was the Interim Director of the Environmental Conservation Education Program at New York University. Benjamin has a Ph.D. in Philosophy from the State University of New York at Stony Brook and an M.P.A. in Natural Resource Policy from the University of Arizona.

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/ben_hale

Highlights: Ben was part of a successful proposal to the National Science Foundation to study ethics, public

policy, and environmental science. Ben's article, *The Veil of Opulence*, was the second most emailed New York Times article on August 14. Ben is an editor of the *Journal Ethics, Policy & Environment*.

ROGER PIELKE, JR.



Roger A. Pielke, Jr. has been on the faculty of the University of Colorado Boulder since 2001 and is a professor in the Environmental Studies Program and a fellow of the Cooperative Institute for Research in Environmental Sciences (CIRES). At CIRES, Roger served as the director of the Center for Science and Technology Policy Research from 2001-2007. Roger's research focuses on the intersection of science and technology and decision making. In 2006 Roger received the Eduard Brückner Prize in Munich, Germany for outstanding achievement in interdisciplinary climate research. Before joining the University of Colorado, from 1993-2001 Roger was a scientist at the National Center for Atmospheric Research. Roger is a senior fellow of the Breakthrough Institute. He is also author, co-author or co-editor of seven books, including *The Honest Broker: Making Sense of Science in Policy and Politics* published by Cambridge University Press in 2007. His most recent book is *The Climate Fix: What Scientists and Politicians*



Ben Hale and graduate student Alexander Lee conducting field work on harsh environments in Death Valley, California.



Roger Pielke, Jr. was the 2012 recipient of the Geological Society of America (GSA) Public Service Award.

Won't Tell you About Global Warming (September, 2010, Basic Books).

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/roger_pielke

Twitter: @RogerPielkeJr

Blog: <http://rogerpielkejr.blogspot.com>

Highlights: Roger was awarded an Honorary Doctor of Philosophy from Linköping University, one of Sweden's top universities that focuses on interdisciplinary research and teaching. He was also the 2012 recipient of the Geological Society of America (GSA) Public Service Award. Roger's eponymous blog offers wide-ranging commentary and analysis and is one of the top-read environmental and science policy blogs globally.

WILLIAM TRAVIS



Bill Travis is director of the Center for Science and Technology Policy Research and also an associate professor of Geography at the University of Colorado Boulder. His teaching and research focus on human

behavior in the environment, including studies of the human dimensions of climate change, land use and the interaction of people and ecosystems. His current projects focus on the theme of potential social response to extreme climate change, including warning systems, the most transformative and difficult adaptive choices, and risk analysis approaches to adaptation.

Home page: http://sciencepolicy.colorado.edu/about_us/meet_us/william_travis

Highlights: Bill gave a paper on "Extreme Events: Pacemakers of Climate Adaptation?" at the Second International Conference on Climate Adaptation, Tucson, AZ in May. He was awarded a two-year, \$195,000 grant, from the National Oceanic and Atmospheric Administration entitled "Building Climate Science into Land and Water Conservation Planning and Decision-Making in the American Southwest."



RESEARCH

Center faculty conduct research at the interface of science and decision making on a broad range of topics including the cultural politics of climate change, the role of mass media in policy decisions, the factors that shape the adaptive capacity of organizations, ethics in environmental decision making, decision making by philanthropic organizations, and whether extreme events might act as pacemakers of adaptation to underlying trends such as climate change. Their 2012 research projects are summarized below.

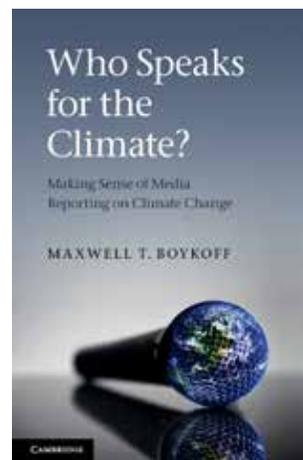
MAX BOYKOFF

Max's research concentrates on the interactions between state and non-state actors at the interface of environmental science, policy and practice. He works primarily in two areas: the cultural politics of climate change, and transforming carbon-based economies and societies.

CULTURAL POLITICS OF CLIMATE CHANGE

Max's book, *Who Speaks for Climate? Making sense of media reporting on climate change* (2011), works to make sense of how media representations of climate change influence the spectrum of possible responses to modern climate challenges. It is motivated by conditions in this 21st century where people rely more than ever upon media representations to help interpret and make sense of the many complexities relating to climate science and governance. Media representations – from news to entertainment – are powerful and important links

between people's everyday realities and experiences, and the ways in which these are discussed at a distance between science, policy and public actors. A dynamic mix of influences – from internal workings of mass media such as journalistic norms, institutional values and practices, to external political economic, cultural, and social factors – shape what becomes climate 'news' or 'information'. Amid these spaces of meaning-making reside questions regarding who – through media visibility – translates climate science and governance, as well as how.



Max also continues to examine media coverage of climate change in country contexts such as the United States, United Kingdom and India. He and colleague Maria Mansfield (University of Exeter) continue to track newspaper coverage of climate change or global warming in 50 newspapers across 20 countries and 6 continents. They update this figure on a monthly basis as a resource for journalists, researchers, and others who may be interested in tracking these trends. See Media Coverage of Climate Change/Global Warming graphs (updated regularly), http://sciencepolicy.colorado.edu/media_coverage.

2004-2012 World Newspaper Coverage of Climate Change or Global Warming



TRANSFORMING CARBON BASED ECONOMIES AND SOCIETIES

Max co-authored a 2010 Global Environmental Change article with Dr. David Frame (University of Oxford) and Dr. Sam Randalls (University College London) that interrogated the institutionalization of the discourse of “climate stabilization” over the last three decades. Taking a historical perspective, they argue that while this discourse has been valuable in making climate science legible and useful to governance in the past, it is now limiting wider considerations for alternative mitigation efforts, through premature foreclosure around fixed international policies.

He has also increasingly worked on issues of climate adaptation and urban environments in the Indian context. With Dr. Emily Boyd (University of Reading), he has examined adaptation strategies associated with flood events in Mumbai, India. Such work links with some of Max’s past research that examined vulnerability and livelihood issues in relation to global climate change and extreme events in Honduras.

DESERAI ANDERSON CROW

Deserai’s research interests include environmental policy and the role that mass media and other factors play in policy decisions. She is particularly interested in environmental issues in the western United States. Her current research includes studies on environmental reporting trends, communication in environmental policymaking, and stakeholder use of environmental messaging strategies. Her previous research focused on the adoption of non-consumptive recreational water rights by Colorado communities and the factors that influenced policy change within these communities,

including mass media, policy entrepreneurs, stakeholder group involvement, and citizen engagement.

NARRATIVES, MEDIA, AND ISSUE FRAMING IN ENVIRONMENTAL POLICYMAKING

As part of this umbrella of studies, researchers are investigating stakeholder strategies and effectiveness as key components in a complete analysis of policy change and policy coalition dynamics. Using a comparative study of stakeholder coalitions in environmental policymaking, researchers are analyzing stakeholder narrative strategy, effectiveness, and framing of winners and losers by policy actors. Additionally, they are evaluating the difference between narratives used in direct stakeholder outreach and those used in and through media sources, in an attempt to understand the variation in narratives used in different communication channels. This project will contribute to the methodological conversations related to narratives in policymaking as well as expanding our understanding of the role of these narratives. Researchers are using Colorado water and energy case studies to compare the use of narratives by advocates across time and subject areas.

RISK PERCEPTIONS AND SUPPORT FOR MANAGEMENT REGIMES IN WILDLAND-URBAN INTERFACE ZONES: A COMPARATIVE ANALYSIS OF WILDFIRE POLICY AND CITIZEN RESPONSE IN THE INTERMOUNTAIN WEST

Western states are experiencing significant population growth and development combined with prolonged drought conditions and predictions of climate change that indicate increasing drought in the West. An area that is geographically and climatically prone to catastrophic wildfires and which also overlaps with high



rates of population growth is termed the Red Zone. More fires are expected in the Red Zone in future years, necessitating appropriate and well-informed policy in order to reduce risk to life and property as well as sustain ecological benefits.

Understanding residents' perceptions of risk and responsibility in regards to fire mitigation and management in the Red Zone is important to shaping policy and land management decisions. Though this is an increasingly urgent topic, little research has been conducted to investigate the nexus between fire and residents' values, beliefs, and the role of information in promoting support for fire management as well as influencing individual beliefs about the locus of responsibility for fire abatement (local, state, federal government, or individual homeowners).

With a team of graduate students, this study attempts to gain insight into the role that individual beliefs and external information sources (science, policy/management prescriptions, media coverage, advocacy communication) play in shaping residents' behavior, risk perception, and policy support regarding fire management in the wildland-urban interface.

EVALUATING INFORMATIONAL INPUTS IN RULEMAKING PROCESSES: A MULTI-STATE REGULATORY ANALYSIS

This study analyzes the informational inputs and strategic actions of coalitions of actors within the regulatory context and the resulting regulatory outcomes. Scholars understand the resources of coalitions of actors to be important to influencing policy outcomes. The study investigates one such category of resources: information. Information that can influence

polymaking in the regulatory context can include science and other expert-produced information, advocacy-oriented information, industry-focused information, or media-produced information. Citizens can also, at times, produce effective information that can be influential to informing and influencing regulatory decisions. Not only is the information itself a resource, used to inform and persuade, but also the strategy with which the information is used can be important to understand when studying coalitions of actors.

LISA DILLING

Lisa's research focuses on what factors are associated with policy choices to mitigate weather- and climate-related risks, to identify the policy barriers that might exist to acting proactively to adapt to climate change. Her research asks questions such as: What is the role of scientific information? How do communities perceive risk? How are choices and tradeoffs evaluated? Lisa's research program focuses on the science-policy nexus, including the processes used to generate policy-relevant science and the use of information in policy-making processes that can help society mitigate or adapt to climate change. She studies this area along three major fronts: 1) How do science policies shape the usability of research for decision making?; 2) How do current decision processes incorporate climate-related risk or opportunity?; and 3) What factors shape the adaptive capacity of organizations?

INTERACTIONS OF DROUGHT AND CLIMATE ADAPTATION (IDCA) FOR URBAN WATER

This NOAA Sectoral Applications Research Program (SARP) project is examining how drought policies interact with both short-term drought and long-term climate

change, asking whether adjustment today or in the past leads to more resilient systems across climate time scales. It is taking a unique interdisciplinary approach to tackling these questions by including investigators from the natural hazards community, the climate adaptation community, experts in the use of climate information, and the water resource and policy community, as well as working in tandem with an Advisory Working Group of stakeholders from the water management and urban adaptation community to ensure that the work is relevant in this rapidly evolving context. The project is conducting a literature review of the vulnerability and drought management literatures, interviewing 21 water managers from around the country about drought history and response, and conducting three in depth case studies of urban water systems to evaluate changing vulnerabilities with specific drought policies.

EVALUATING STAKEHOLDER NEEDS IN SUPPORT OF A NEW NATIONAL ASSESSMENT FUNCTION

This WWA-funded project has developed a database of stakeholder needs across the upper and lower Colorado Basin. Together with the Great Lakes and Carolinas RISAs, we have developed a database from past and current stakeholder reports, meetings, and studies, coding the information for variables of interest (such as understanding how climate information needs change across time and sectors, levels of interaction with scientists, participation in networks, characterization of needs across scale and sectors, accuracy/level of uncertainty, spatial distribution, complementarities and synergies, patterns of knowledge uptake, etc.), and developed a comprehensive framework that can be accessed and tested by other RISAs and assessment groups.

THE ROLE OF U.S. STATES IN BUILDING ADAPTIVE CAPACITY FOR WATER RESOURCE MANAGEMENT

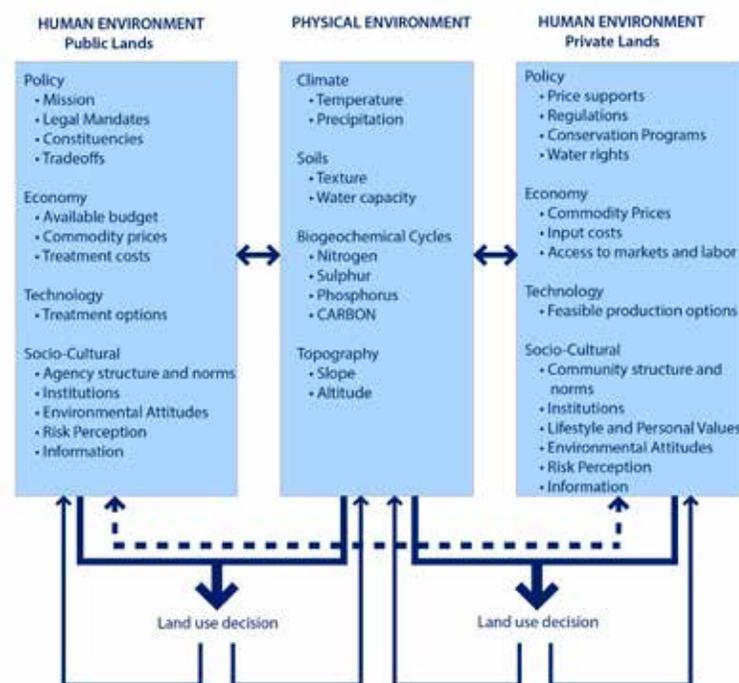
Lisa and post-doc Christine Kirchhoff examined the role of U.S. states in governing water planning and allocation, with an emphasis on the use of information and the interaction of decision making across scales. Five U.S. states were studied in a total of 45 interviews of planners, water managers, data providers and the like. Results indicate that the role of information varies with the type of allocation governance structure, and that values and constituent demands can act as either motivators or barriers to change, depending on circumstances. These results have been presented at several international meetings and are being written up in two publications.

CLIMATE CHANGE ADAPTATION IN U.S. PUBLIC LANDS: PROGRESS, BARRIERS AND THE ROLE OF INFORMATION

With NSF and WWA funding, Lisa and graduate student Kelli Archie (along with Jana Milford and Fred Pampel) examined the status of decision making on climate change and adaptation by U.S. federal land managers in several western states. The project focused on opportunities and barriers to action, as well as the role of information in supporting decision making on adaptation. Over 600 public lands officials in three western states were surveyed and results were recently published and included in Kelli's dissertation.

CARBON MANAGEMENT ON PUBLIC LANDS IN THE INTERMOUNTAIN WEST: MULTI-SCALE ANALYSIS OF CARBON STOCK RESPONSES TO HUMAN AND NATURAL DISTURBANCES

Lisa is collaborating on a USDA-funded project with colleagues to understand the decision process on public lands in southwest Colorado and how carbon information might be incorporated into decision making. Part of the effort will include designing and developing a decision support tool that will be tested and refined with colleagues at the San Juan Public Lands Center. Recent work uses GIS to understand the opportunities for managing carbon where management designations and carbon stocks portfolios are in alignment.



Conceptual representation of underlying physical and human environment drivers of land use decision making and feedbacks. Human environment drivers are separated into those influencing public land managers and those influencing private land managers, as those human drivers can be quite different.

UNDERSTANDING THE DRIVERS OF ADAPTATION AT THE MUNICIPAL LEVEL IN CO, WY AND UT

Lisa is co-leading this WWA-funded project to investigate why some local decision makers choose to adapt to climate-related stress and risk while others do not. The project is systematically investigating the conditions under which local decision-makers in cities and large towns in Colorado, Utah, and Wyoming decide to adapt (or not) to increased climate-related risk and hazards. The two-fold objective of the project is (1) to collect, organize, and analyze original data on the causes and consequences of local adaptation decision making, and (2) to produce new knowledge that is relevant to the work of WWA and its key constituents.

GOVERNING GEOENGINEERING RESEARCH: WHY, WHEN AND HOW?

Lisa is collaborating with graduate student Rachel Hauser on an effort to look at analogs from other areas of research to understand the key features that a governance framework on geoengineering research must address and the lessons provided by other controversial fields of research. This work has been invited for publication in a special issue of Climatic Change.

BEN HALE

Ben's work is directed toward advancing a more deliberative and interdisciplinary approach to environmental issues. He focuses primarily on ethical questions associated with environmental remediation, public health, moral status and public policy tools.

DELIBERATION AND COMMUNICATION-- BUILDING PRACTICAL SKILLS IN THE NEXT GENERATION OF ENVIRONMENTAL SCIENTISTS

In 2012 Ben was part of a successful joint NSF proposal between Northern Arizona University, the University of

Montana, and the University of Colorado. The CU portion will support Ben and his team of students in the creation of ten short ethics videos on the normative dimensions of climate change. They will place particular emphasis on the mountain west and steer the topic matter to suit the classroom.

ROGER PIELKE, JR.

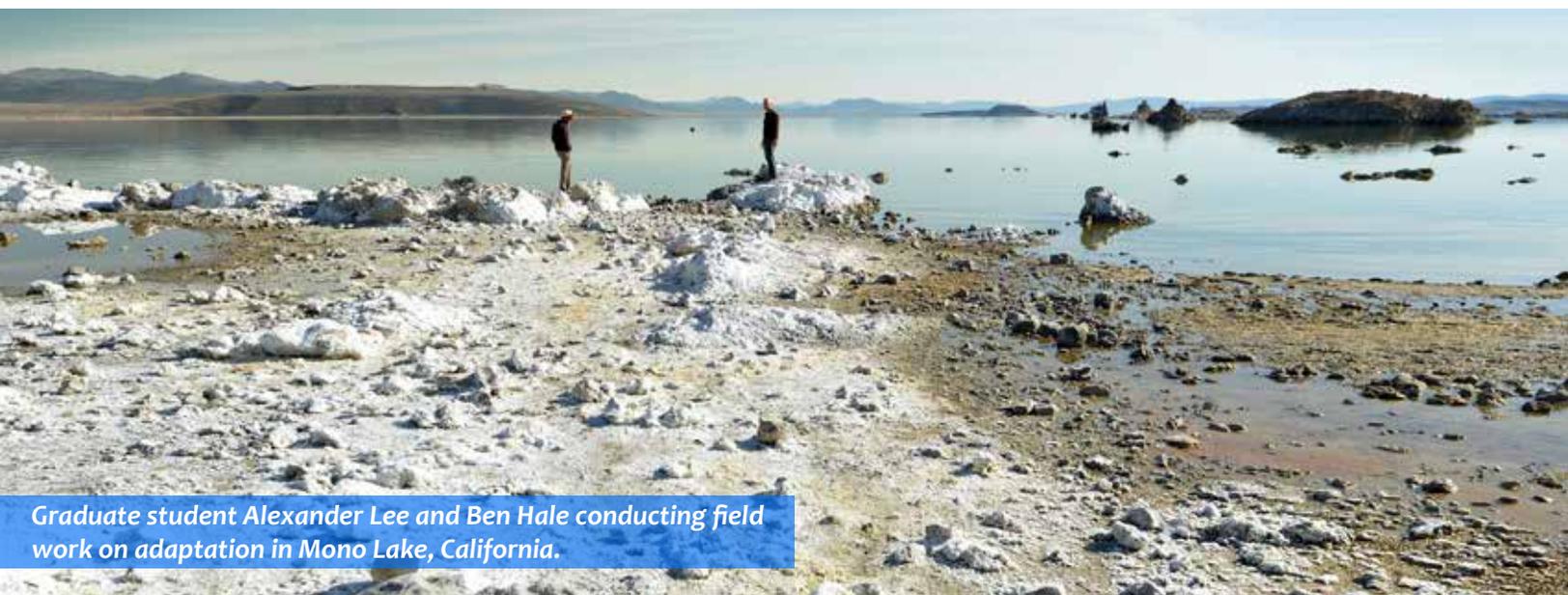
Roger's research focuses on the intersection of science, technology and decision making. Recently he has turned his attention to decision making by philanthropic organizations and the governance of international sports organizations, and has started a new book on innovation in the global economy.

HOW PHILANTHROPY CAN IMPROVE ITS EFFECTIVENESS IN POLICY AND POLITICS

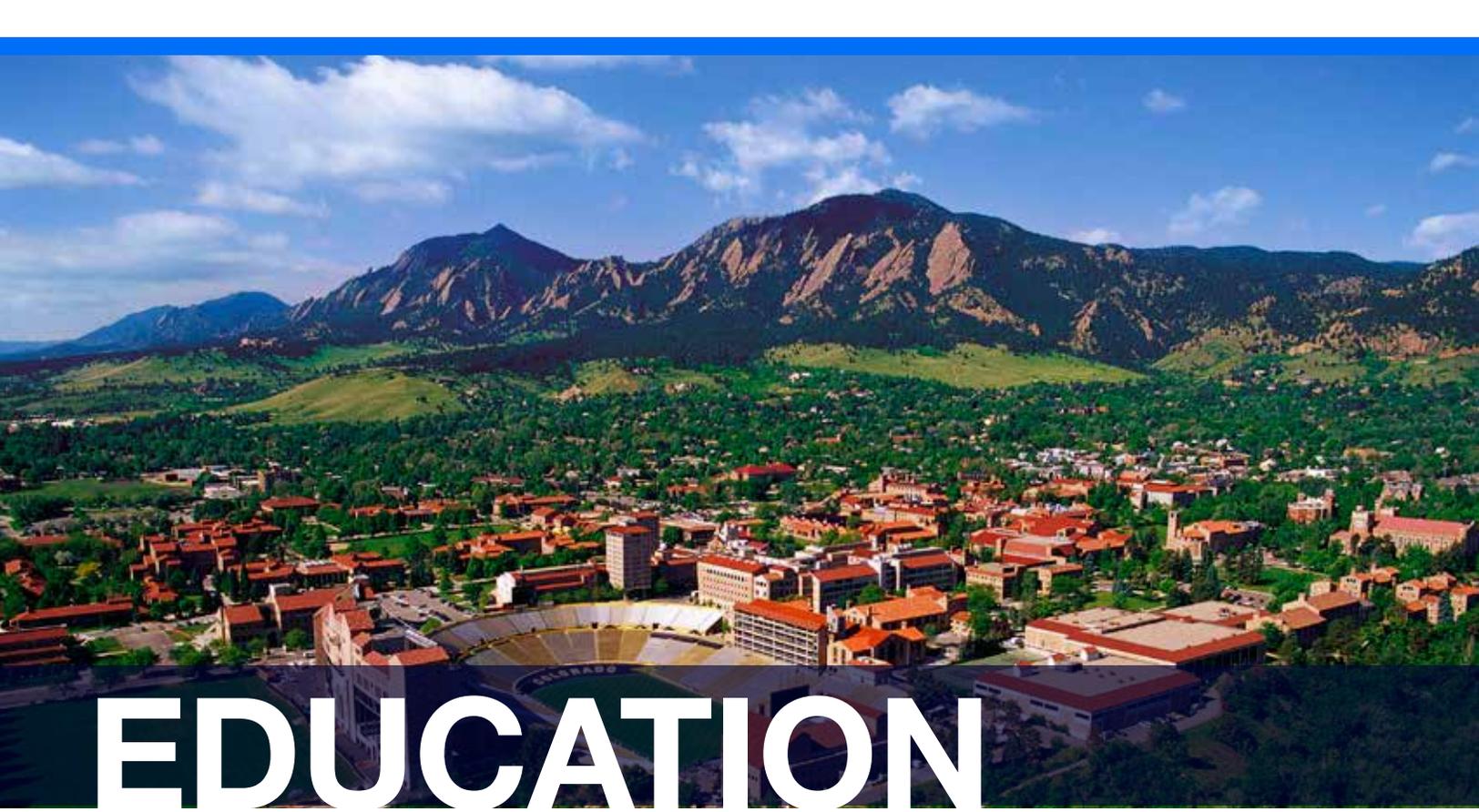
This new project is focused on clarifying a broader scope of practical options for how philanthropy can contribute to policy and politics, building upon the model of engagement first introduced in Roger's book, *The Honest Broker*. As such it is a unique and novel approach to the challenges faced by contemporary philanthropy in 21st century American politics. This project has two major components: 1) sustained in-person interaction over the course of a year with the Nathan Cummings Foundation, including its board and staff to develop a novel and practical approach to philanthropy as a contribution to its on-going strategic planning exercise; 2) 3 white papers prepared on the following topics: expert arbitration, honest brokering, and options for philanthropy.

BILL TRAVIS

Bill is studying and building risk and decision models to explore hypotheses about adaptation to weather and climate extremes, and to climate change.



Graduate student Alexander Lee and Ben Hale conducting field work on adaptation in Mono Lake, California.



EDUCATION

An important part of the Center’s mission involves educating the next generation of science and technology policy scholars to work at the interface of science and decision making. In furtherance of this mission the Center, in collaboration with the Environmental Studies Program, sponsors a certificate in Science and Technology Policy for graduate students. Center faculty also teach classes and advise individual graduate students.

GRADUATE CERTIFICATE IN SCIENCE AND TECHNOLOGY POLICY

The S&T Policy certificate program, directed by Roger Pielke and now in its eighth year, is a rigorous educational program to prepare students pursuing graduate degrees for careers at the interface of science, technology, and decision making. Upon completion students will have attained a measure of understanding of the broad societal context of science and technology as well as an introduction to methodologies of policy analysis that are used in decision settings related to science and technology. The program currently includes 22 students from a variety of CU departments and institutes. Nineteen students have already completed the program and have found careers in government, academia and non-profits.

2012 CENTER GRADUATES

We said farewell to two of our graduate students in 2012 as they obtained their degrees and went on to make their marks in the world.

KELLI ARCHIE



Kelli Archie received her Ph.D. in Environmental Studies in 2012. Her dissertation research covered climate change adaptation planning on public lands in the Western U.S. and in Colorado mountain communities.

MARY HUISENGA

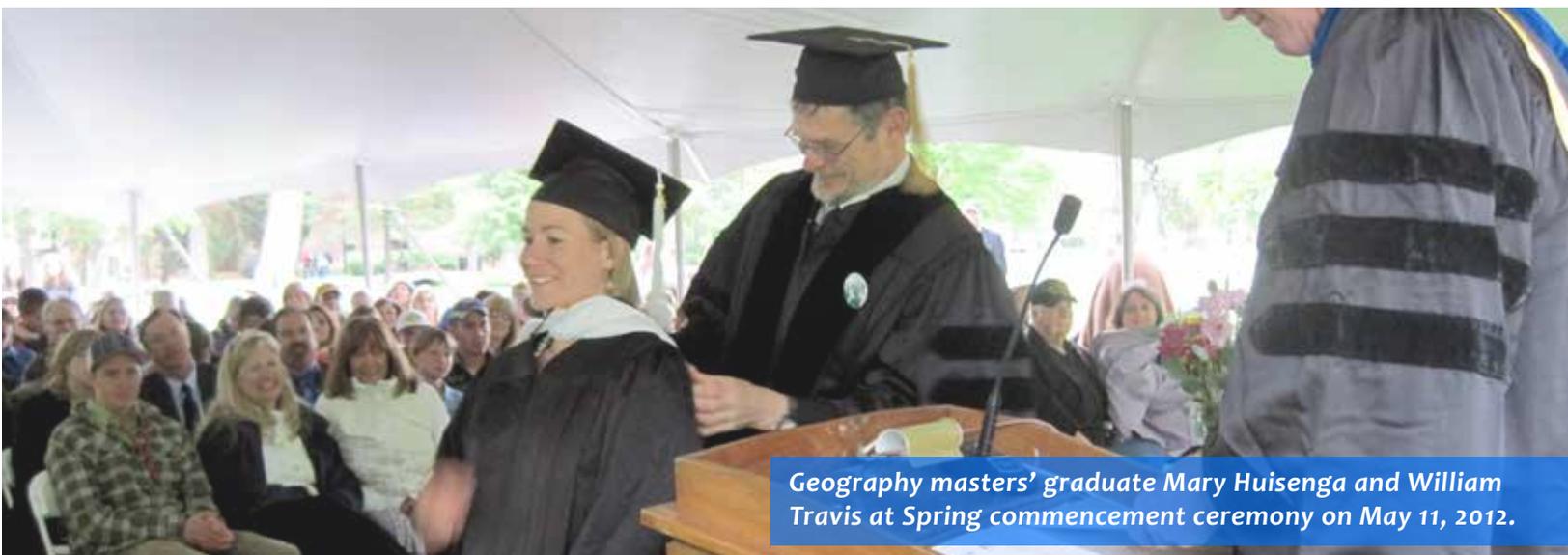


Mary Huisenga completed her master's degree in Geography in 2012. Mary's focus was on environment-society relations, landscape changes and social implications of water quality/supply. She joined Stratus Consulting in Boulder, and continued as a part-time Professional Research Assistant in the Center to work on climate decision modeling.

COURSES TAUGHT BY CENTER FACULTY IN 2012

Center faculty taught the following courses in 2012:

- ENVS 1000: Introduction to Environmental Studies (Max Boykoff)
- ENVS 3521: Climate Policy and Politics (Lisa Dilling)
- ENVS 3800: The Art of Research (Lisa Dilling)
- ENVS 4100/3521: Climate Politics and Policy (Max Boykoff)
- ENVS 4100: Inside the Greenhouse (Max Boykoff)
- ENVS 4800: U.S. Environmental Policy (Deserai Crow)
- ENVS 4800: Skepticism, Denialism and Scientism: The History and Philosophy of Climate Science (Ben Hale)
- ENVS 5000: Science Policy and Values (Deserai Crow)
- ENVS 5001/PHIL 5240: Graduate Seminar in Environmental Philosophy (Ben Hale)
- ENVS 5100: Science and Technology Policy (Roger Pielke, Jr.)
- ENVS 5100-004: Adaptation Seminar (Lisa Dilling)
- ENVS 5110: Science and Society (Roger Pielke, Jr.)
- ENVS 5720: The Problem Orientation (Max Boykoff)
- ENVS 5909 Political Ecology seminar (Max Boykoff)
- GEOG 3402: Natural Hazards (Bill Travis)
- GEOG 4742: Hazard and Risk Assessment (Bill Travis)
- GEOG 3920: Internship (Bill Travis)
- GEOG 5152: History and Theory of Geography (Bill Travis)
- JOUR 6871: Media and Environment (Deserai Crow)
- PHIL 3140: Environmental Ethics (Ben Hale – 2 sections)



Geography masters' graduate Mary Huisenga and William Travis at Spring commencement ceremony on May 11, 2012.

CIRES Interim director, Dr. William Lewis, giving introduction at CSTPR's 10th anniversary keynote speech.



OUTREACH

Center outreach engages the science and technology policy community and others in discussion of and reflection on critical issues at the intersection of science, technology and decision making. Center outreach efforts over the past year have included the following:

10TH ANNIVERSARY CELEBRATION

The Center marked the 10th anniversary of its founding at the University of Colorado with an all-day event featuring four panel discussions and a keynote address by Dr. John Holdren, science advisor to President Obama, titled "Science and Technology Policy in the Obama Administration." Please see the Highlight on p. 3 for more information.

INTERNATIONAL CONFERENCE ON CULTURE, POLITICS, AND CLIMATE CHANGE

Deserai Crow developed and organized the International Conference on Culture, Politics, and Climate Change held at the University of Colorado Boulder September 13-15. This was a cross-disciplinary conference bringing together



Roger Pielke, Jr. speaking on a panel discussion at CSTPR's 10th anniversary celebration.



Mike Hulme speaking at the International Conference on Culture, Politics, and Climate Change.

over 350 scholars from over 20 countries in fields such as Environmental Communication, Environmental Policy and Politics, Risk Communication, Visual Culture, Religion and the Environment, Globalization and Spirituality, Journalism Studies, and Science Communication to discuss the obstacles and opportunities the U.S. faces with regard to climate policy. Max Boykoff, Lisa Dilling and Ben Hale moderated panel discussions.

NEW BOOKS

Max Boykoff is the co-editor of a new book, *The New Carbon Economy: Constitution, Governance, And Contestation*, Peter Newell, Maxwell Boykoff, and Emily Boyd, editors. Published by Wiley-Blackwell in January 2012, the book offers key insights into the constitution, governance and effects of the carbon economy across a variety of geographical settings.



FACULTY AND STUDENT PRESENTATIONS

Center faculty and students gave 70 presentations over the past year on a wide variety of topics including “Fixing the Wrong Wrong: Geoengineering and the End of the World” and “What Scientists and Politicians Won’t Tell You About Global Warming”, at venues including the Center for Islamic Legislation and Ethics, Doha, Qatar, and Planet Under Pressure International Conference, London, United Kingdom.

A complete list can be found in the Appendix.

NOONTIME SEMINAR SERIES

Every semester during the academic year the Center sponsors a noontime seminar series with a different theme, bringing researchers and students from across campus and elsewhere to discuss their work. The 2012 noontime seminar series themes were “The Communications-Policy Nexus: Media, Messages, and Decision Making” and “Going to Extremes: Science and Social Response.” See the Appendix for a complete list of talks in the series. The Center began live webcasting our noontime seminar talks to allow remote viewing. The webcasts are also available on our website after the event.

In addition, the Center cosponsored the Environmental Studies colloquia series during spring semester (see Appendix).



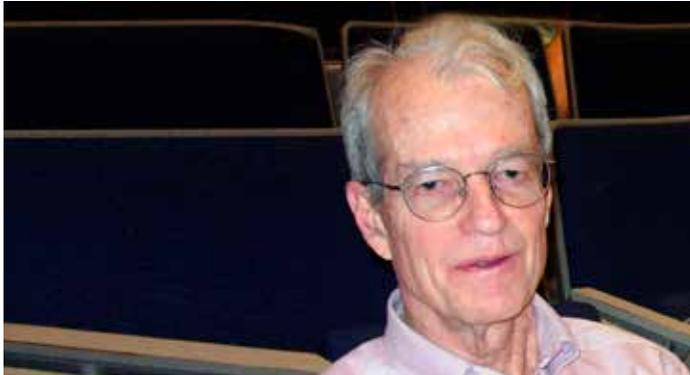
OTHER OUTREACH EFFORTS

- Articles in peer reviewed journals and non-peer reviewed publications (see Appendix)
- Content rich website
<http://sciencepolicy.colorado.edu>
- Regular newsletter, Ogmius
<http://sciencepolicy.colorado.edu/ogmius>
- Briefing sent to over 4200 Washington, D.C. decision makers
http://sciencepolicy.colorado.edu/outreach/cstpr_briefings.html
- Roger Pielke, Jr.’s Breakthrough Institute Column
<http://sciencepolicy.colorado.edu/publications/special/breakthrough>
- Roger Pielke, Jr.’s Office of Science & Technology’s Column, *Bridges*
<http://sciencepolicy.colorado.edu/publications/special/bridges.html>
- Roger Pielke, Jr.’s science policy blog
<http://rogerpielkejr.blogspot.com>
- Frequent media references (see Appendix)
- Twitter and Facebook presence
https://twitter.com/cu_cstpr
<https://www.facebook.com/279714958827043>

CENTER PERSONNEL

ADMINISTRATIVE & RESEARCH STAFF

RAD BYERLY



Rad Byerly received his Ph.D. in experimental atomic and molecular physics at Rice University in 1967. After a postdoctoral fellowship at JILA, Rad moved to science management and policy at the National Institute of Standards and Technology. He joined the staff of the U.S. House of Representatives Committee on Science and Technology in 1975 with responsibility for environmental research programs. He became staff director of the House Space Subcommittee in 1985. In 1987 Rad became director the University of Colorado's Center for Space and Geosciences Policy. Rad was appointed Committee chief of staff in 1991. He retired in 1993, and now writes on science policy and serves on various committees. At the Center he works with students to offer his perspective as a practitioner and with faculty on various projects.

ELIZABETH HALL



Elizabeth provided administrative support at the Center throughout 2012. She graduated with a B.A. and licensure in Education from the University of Colorado-Boulder in 2010.

ROBERTA (BOBBIE) KLEIN



Bobbie Klein is the Center's Managing Director. She obtained her law degree from the University of

Wisconsin and worked as an attorney for fifteen years in state and federal government. She obtained an M.A. in Public Policy with a focus on environmental policy at the University of Colorado. Bobbie's research interests include municipal response to drought, climate change adaptation, and socioeconomic drought indicators.

Highlight: Bobbie, along with Bill Travis, co-authored two white papers for the Socioeconomic Impacts and Adaptation Strategies project: Assessing Research on Drought, Climate Change and Recreation, and Assessing Research on Quantification of Drought Impacts.

AMI NACU-SCHMIDT



The Center's outreach efforts are coordinated by Ami Nacu-Schmidt. Ami provides graphics and website design for all of the Center's websites. She also serves as the associate editor for the Center's newsletter, Ogmios, and as the program coordinator for the Graduate Certificate in Science and Technology Policy. She designs posters and flyers for events, provides logistical support for workshops and compiles workshop reports.

Highlight: Ami created the majority of the images for the new Southwest Climate Assessment, one component of the ongoing National Climate Assessment.

STUDENTS

KELLI ARCHIE



Kelli worked as a CIRES graduate research fellow and as a graduate research assistant at the Center. Her dissertation research covered climate change adaptation planning on

public lands in the Western U.S. and in Colorado mountain communities. She, along with Professors Lisa Dilling, Jana Milford, and Fred Pampel, had a paper published in Ecology and Society titled "Climate Change and Western Public Lands: A Survey of U.S. Federal Land Managers on the Status of Adaptation Efforts." Kelli has an M.S. in Environmental Studies from the University of Colorado Boulder and a B.A. in Economics from Colorado State University. She was awarded a Ph.D. in Environmental Studies in 2012.

MARILYN AVERILL



Marilyn Averill is a doctoral student in Environmental Studies with interests in international environmental governance, environmental justice, the politics of science, and science and technology policy, particularly in the context of global climate change. Her research focuses on the role that litigation plays in shaping climate-related policy.

Marilyn was formerly an attorney with the Department of the Interior, where she provided legal advice to the U.S. Fish and Wildlife Service and the National Park Service. She graduated from Wellesley College and holds Master's degrees in Public Administration from the Kennedy School of Government and in Educational Research and Evaluation Methodology from the University of Colorado, and a J.D. from the University of Colorado School of Law.

JOHN BERGGREN



John is a Ph.D. student in Environmental Studies at the University of Colorado, with a secondary focus on

water policy. His academic research will be on western water policy and governance, with a focus on the Colorado River. John worked with Lisa Dilling on the Framework for Assessing Stakeholder Needs for Climate Information project. John holds a B.A. in Public Health Studies from the Johns Hopkins University, and an M.H.S. in Environmental Health from the Johns Hopkins Bloomberg School of Public Health.

KATIE CLIFFORD



Katie Clifford is a master's student in the Department of Geography working on use of climate information by land managers. Her field focus is in the Gunnison Basin where The Nature Conservancy has a long-term climate vulnerability and adaptation program underway. Katie is examining how climate scenarios and conservation problems interact.

MEAGHAN DALY



Meaghan Daly is a Ph.D. student in the Environmental Studies Program and a research assistant for the Interactions of Drought and Climate Adaptation (IDCA) for Urban Water project. Prior to attending the University of Colorado, Meaghan was a consultant for the Red Cross/Red Crescent Climate Centre and the International Research Institute for Climate and Society, working in Senegal, Kenya, Tanzania, South Africa, and Malaysia, to identify and support strategies to enhance climate risk management in the humanitarian sector. Her academic research focuses on climate change adaptation and risk management in East Africa. Meaghan holds a B.A. in Environmental Science from Colorado College and an M.A. in Climate and Society from Columbia University.

ANDREW GODFREY

Andrew was an undergraduate student in the Environmental Studies Program at the University of Colorado Boulder who graduated in 2012. He provided research assistance to Roger Pielke, Jr.

RACHEL HAUSER



Rachel is in the Ph.D. program in Environmental Studies, focusing on climate science policy. She and Lisa Dilling are working on a project involving geoengineering and governance related to geoengineering research. She also works as a science writer at the National Center for Atmospheric Research (NCAR).

MICHAEL HENRY



Mike Henry is studying the politics and policy of climate change in the U.S. Congress in order to understand how and why Members of Congress respond (or fail to respond) to this defining global issue. A Ph.D. student on the Policy Track, Mike also works full-time in Washington, D.C., as the Manager of Governmental Relations for the University Corporation for Atmospheric Research. Before becoming an ENVSer, Mike was a legislative aide for U.S. Senator Ben Cardin in Washington, D.C. He graduated from Williams College in 2004 with a B.A. in Political Science.

ADAM HERMANS

Adam focuses on Environmental Philosophy. He is particularly interested in what makes a wild animal wild. He holds a B.A. in Studio Arts from Colgate University and a Master of Science Communication from the University of Otago in Dunedin, New Zealand. Adam



(aka At) moonlights as a filmmaker. At Films have been featured in eleven festivals across eight countries. His work includes pieces on primates across Asia and Africa, wedge-tailed eagles in Australia, edible sea vegetables in the far South Pacific, kola nut trees in Cameroon, and American martens in the North Woods. Odd experiences during filming inspired his philosophical interests.

MARY HUISENGA



Mary recently completed her master's degree in Geography with a focus on environment-society relations, landscape changes and social implications of water quality/supply. She and Bill Travis are using a simulation model to test hypotheses about whether extreme events might act as pacemakers of adaptation to underlying trends such as climate change. They are modeling the adaptive behavior of a Great Plains wheat farm in response to drought.

ZACHARY JOHNSON



Zach is an undergraduate in the Physics department at the University of Colorado Boulder who provides invaluable

support to the Center including IT troubleshooting, database analysis and web programming.

ARIELLE TOZIER DE LA POTERIE



Arielle grew up in Portland, Oregon. She has a B.A. in anthropology from Vassar College and recently earned an M.Sc. in Sustainable Development from Utrecht University in the Netherlands. Before deciding to pursue her master's, she taught English in France and worked for several years in environmental education, restoration, and policy in the Portland area. She has many interests but hopes to focus her research on environmental issues related to international development.

ALEXANDER LEE



Alex is a Ph.D. student in the Environmental Studies Program and member of the Committee on Environmental Thought (ComET). He focuses on applied ethics and the environment, using ethical theory and applied philosophy to better understand human impacts on the natural world. Alex received his A.B. from Dartmouth College as double major in environmental earth science and philosophy. He recently completed his M.S. working on the ethics of environmental restoration, work he now continues with ComET. His dissertation will focus on moral responsibility and the ontology of environmental change.

LUCY MCALLISTER

Lucy McAllister graduated summa cum laude from Connecticut College in 2009 with a B.A. in Environmental Studies and German Studies. Before coming to study at



the University of Colorado Boulder in the fall of 2011, Lucy spent time in Hamburg, Germany on a Fulbright scholarship and worked at the German Consulate in Chicago, Illinois. This past summer Lucy worked at the University of Hamburg's climate change campus, where she conducted research for her master's thesis on e-waste governance. Broadly, Lucy is interested in the nexus of environmental justice, development and political ecology at the international level. For her Ph.D. research, she is exploring transboundary movements and governance of e-waste, particularly between India and the U.S.

MARISA MCNATT



Marisa is a Ph.D. student in the Environmental Studies Program with a policy focus and a member of the research group the International Collective on Environment, Culture & Politics (ICE CaPs). Marisa is generally interested in the factors that influence and shape the public and policy-makers' opinions on climate and energy policy in the U.S., ranging from geographical, to socioeconomic, to cultural values. Marisa was chosen as a 2013 Climate Media Fellow for the Heinrich Boll Foundation with the goal of familiarizing U.S. energy experts with the European and German experiences transitioning toward a low carbon economy. Marisa received her B.A. in English Literature from Davidson College in 2007 and earned her Master in Journalism and Broadcast and a Graduate Certificate on Environment, Policy and Society from the University of Colorado Boulder in 2011.

SHAWN OLSON



Shawn Olson hails from the Pacific Northwest, where she received a B.A. in Environmental Studies and Social Movements from The Evergreen State College. Since then, she's roved the West, spending several seasons as an environmental educator in Alaska's Wrangell Mountains and as a wilderness therapy field leader in the deserts of south-central Utah. At CU, she is studying the politics, history, and ideological polarizations that lead to conflicts over public lands in the American West.

Shawn is the co-author of two books: *Defending Wild Washington: A Citizen's Action Guide* (Mountaineers Books, 2004) and *Community and Copper in a Wild Land* (Wrangell Mountains Center & National Park Service, 2005).

KANMANI VENKATESWARAN



Kanmani Venkateswaran graduated from Kenyon College in May 2011 with a bachelor's degree in Biology and a concentration in Environmental Studies. She completed an internship at the Ashoka Trust for Research in Ecology and the Environment in Bangalore, India in 2012. She has been working with Dr. Siddhartha Krishnan and Dr. Gladwin Joseph on human adaptation to climate change in agricultural communities in Natham taluk, Tamil Nadu. Earlier in the internship, Kanmani was also a part of Indian policy-making, collating the report on sustainability, biodiversity and rural livelihoods for the Planning Commission's Five Year Plan. Kanmani also spent time in 2012 in Ooty, Tamil Nadu mapping self-identified settlements and areas of cultural/religious importance in Toda communities.

XI WANG



Xi Wang is a Master of Science student in the Environmental Studies Program at University of Colorado Boulder. Xi is focusing on examining resource use in the context of energy. She is particularly interested in understanding the interactions among actors across societal sectors--scientists, policy makers, industry, and the public--which challenge large-scale transitions to renewable energy use.

Prior to ENVS, Xi worked as a strategy and technology consultant at Booz Allen Hamilton in Washington, D.C. While there, she also engaged in social, food, and environmental justice activism. Xi has also worked at the Monterey Bay Aquarium as an environmental stewardship guide, and spent summers in southern Spain and Ecuador on organic and subsistence farms. Xi earned a B.A. in English from Cornell University.

JESSICA WEINKLE



Jessica Weinkle is a Ph.D. student in the Environmental Studies Program with a secondary core in Policy. While working on her M.A. in Climate and Society at Columbia University she became interested in natural hazards and risk perception and communication. She has come to Colorado to continue to pursue those interests. Jessica did her undergraduate work in zoology at the University of Texas at Austin. Jessica was awarded the highly competitive CIRES Graduate Research Fellowship for fall 2012.

VISITORS

SARAH TRAINOR

Sarah Trainor visited us from the University of Alaska Fairbanks. At UA, Sarah is a Research Assistant Professor and also a coordinator at the Alaska Center for Climate Assessment and Policy. Sarah conducts research related to human-dimensions of climate change in Alaska.



ALUMNI

Adam Briggie (Ph.D., ENVS, 2006), is an assistant professor in the Department of Philosophy and Religion Studies and a faculty fellow in the Center for the Study of Interdisciplinarity at the University of North Texas. He is author of *A Rich Bioethics: Public Policy, Biotechnology, and the Kass Council* (University of Notre Dame Press, 2010) and co-author with Carl Mitcham of *Science and Ethics: An Introduction* (Cambridge University Press, 2012). His latest work is on the ethics and politics of shale gas drilling.



Kelsey Cody completed his M.S. in Environmental Studies on the Water and Society track/secondary core under Doug Kenney. The title of his thesis is "Climate Change, Growth, and Regional Integration: Lessons for Colorado's Front Range Municipal and Industrial Water Providers." He is now in the Ph.D. program in ENVS (dissertation is related to adaptation) and teaching with the Program for Writing and Rhetoric.



Erik Fisher (Ph.D., ENVS, 2006), is a tenure-track assistant professor in Arizona State University's Department of Political Science with a research appointment at the Consortium for Science, Policy and Outcomes (CSPO).



Kristin Gangwer (M.A., Geography, 2011), worked as a Sustainable Food and Agriculture Consultant. She recently took a position with Our Harvest Cooperative.



Joel Gratz (M.S., Meteorology and Policy, M.B.A., 2006), really likes snow, so he started OpenSnow.com to help everyone who adores fresh powder. The business got its start as an email list in 2007 and has



grown each year, now serving skiers and snowboarders across the U.S. with snow forecasts, reports, and travel recommendations.

Jimmy Hague (M.A., ENVS 2007), received his master's in Environmental Studies with a focus on science and environment policy in 2007. As of 2012 he worked for U.S. Senator Mark Udall in Washington, D.C., where he was responsible for environment, science and natural resource issues.



Nat Logar (Ph.D., ENVS, 2007), is a research fellow at Harvard's Kennedy School of Government, contributing to a larger project on energy technology and innovation. There he examines energy innovation institutions, such as national laboratories like the National Renewable Energy Laboratory and industry consortia such as the Electric Power Research Institute.



Eva Lövbrand (postdoc 2006), is an Assistant Professor in the Centre for Climate Science and Policy Research, Linköping University, Norrköping, Sweden. Her research focuses on the interface of science, politics and democracy.



Jessica Lowery (M.S., ENVS, 2004; J.D., Law, 2012). From 2004 - 2009, Jessica worked for the NOAA/CU Western Water Assessment analyzing the annual and long-term policies, and the potential use of climate information forecasts of municipal water providers in the Intermountain West. She received her J.D. in 2012 is now working as an attorney. Jessica received her M.S. in Environmental Studies in 2004 where she focused her research on environmental and water policy issues in the West.



Genevieve Maricle (Ph.D., ENVS, 2008), serves as USAID's Environment and Climate Change Policy Advisor. In this role, she is responsible for coordinating climate change policy and strategic planning efforts across the agency, and for representing USAID in its work with the other U.S. government agencies responsible for the President's international Global Climate Change Initiative. She managed the release of USAID's new Climate Change and Development Strategy.



Elizabeth McNie (Ph.D., ENVS, 2008), as of 2012 was an assistant professor at Purdue University in Political Science and Earth and Atmospheric Sciences.



Shali Mohleji (Ph.D., ENVS, 2011) is a fellow with the American Meteorological Society's Policy Group in Washington, D.C. She works directly with the AMS Policy Director, Dr. Bill Hooke, on federal natural disaster policy and science policy issues.



Ursula Rick (postdoc 2009), completed a Congressional Geoscience Fellowship with Senator Mark Udall of Colorado and recently took a position as a regulatory affairs analyst with the Western Energy Alliance.



Melanie Roberts (CIRES Visiting Fellow 2009), founded the first chapter of the Forum on Science Ethics and Policy (FOSEP) in 2004, as a Ph.D. student in neurobiology and behavior at the University of Washington in Seattle. After completing her Ph.D., she went to Washington D.C. as an AAAS Science and Technology Policy Fellow. In 2006-07, she worked for Senator Jeff Bingaman on innovation and competitiveness, health policy, and improving science advice for Congress. She then moved to the National Science Foundation, where she addressed peer review for interdisciplinary and transformative research, broader impacts of research, and ethics education. Roberts moved to the University of Colorado Boulder in 2009, where she was a visiting fellow at CSTPR and Assistant Director at the Biofrontiers Institute. She co-founded the second chapter of FOSEP at the University of Colorado Boulder and continues to mentor the group while building a national infrastructure.



Shep Ryen (M.S., ENVS, 2005), worked for several years for the House Committee on Science and Technology before transitioning to his present position at the Government Accountability Office (GAO).



Suzanne Tegen (Ph.D., ENVS, 2006), is a Senior Policy Analyst at NREL's Strategic Energy Analysis Center. Her main focus is on wind energy economics, including employment impacts and the quantification of wind deployment barriers. She also researches state, federal and local renewable energy policy, and reports on the costs of renewable power to the Department of Energy.



Kevin Vranes (CIRES Visiting Fellow 2006-08), is currently the Director of Energy Management Services for E Source. He has more than a decade of experience working on greenhouse gas (GHG) and climate-change issues. He has



worked with numerous corporations and utilities on GHG management (inventories, auditing, and reporting), carbon risk, supply chain emissions and life-cycle assessments, and project analysis. Kevin was a senior legislative staffer in the Washington, D.C., office of Senator Ron Wyden, where he worked on energy and environmental legislation, including the Energy Policy Act of 2005. He holds a Ph.D. in geophysics (physical oceanography, climatology, and atmospheric sciences) from Columbia University, and he was a Public Policy Fellow of Columbia's School of International and Public Affairs.

AFFILIATES

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- K. Vranes (Speaker)
- P. Weiland (Coauthor)
- T. Wilbanks (Coauthor)
- K. Yang (Coauthor)
- T. Yulsman (Speaker)

APPENDIX.

APPENDIX

PUBLICATIONS

(Center personnel bolded)

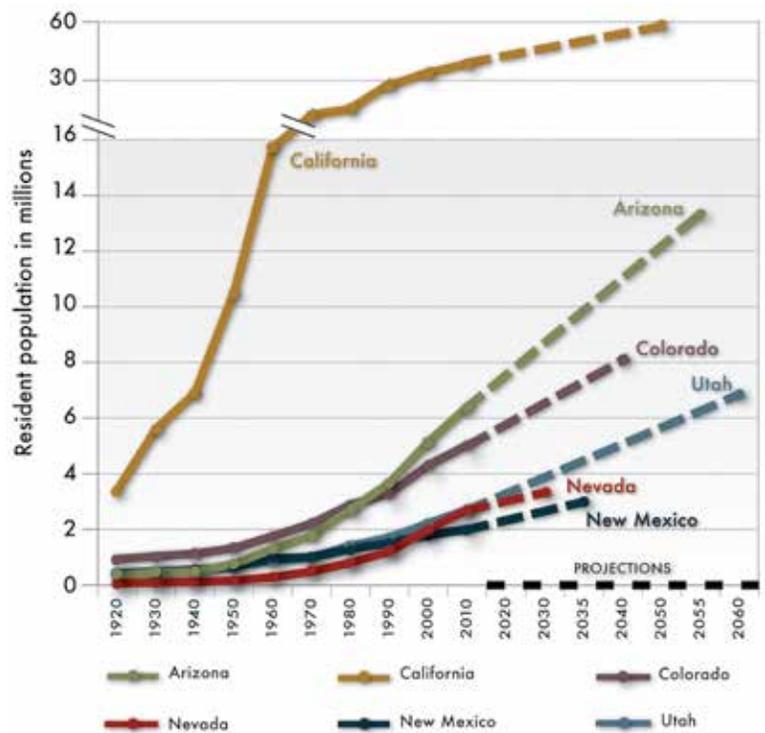
Journal Articles

- **Archie, K. M., L. Dilling**, J. B. Milford, and F. C. Pampel (2012). Climate Change and Western Public Lands: A Survey of U.S. Federal Land Managers on the Status of Adaptation Efforts. *Ecology and Society* 17 (4).
- **Crow, D. A.** (2012). Policy Diffusion and Innovation: Media and Experts in Colorado Recreational Water Rights. *Journal of Natural Resources Policy Research* 4 (1) 27-41, January.
- **Crow, D. A.** and J. R. Stevens (2012). Local Science Reporting Relies on Generalists, Not Specialists. *Newspaper Research Journal* 33 (3) 35-48.
- **Dilling, L.** and E. Failey (2012). Managing carbon in a multiple use world: The implications of land-use decision context for carbon management. *Global Environmental Change*, November 1.
- Ellenwood, M. S., **L. Dilling** and J. B. Milford (2012). Managing United States Public Lands in Response to Climate Change: A View From the Ground Up. *Environ. Manage.* 49 (5) 954-967, May.
- Kates, R. W., **W. R. Travis** and T. J. Wilbanks (2012). Transformational adaptation when incremental adaptations to climate change are insufficient. *Proc. Natl. Acad. Sci. U. S. A.* 109 (19) 7156-7161, 8-May.
- McNeeley, S. M., et al. (including **L. Dilling**) (2012). Catalyzing Frontiers in Water-Climate-Society Research: A View from Early Career Scientists and Junior Faculty. *Bulletin of the American Meteorological Society* 93 (4) 477-484, April.
- **Pielke, Jr., R. A.** (2012). Basic Research as a Political Symbol. *Minerva* 50 (3) 339-361, Sept.
- **Pielke, Jr., R. A.** (2012). Post-Normal Science in a German Landscape. *Nat. Cult.* 7(2) 196-212, Summer.
- Schroeder, H., **M. T. Boykoff**, and L. Spiers (2012). Equity and state representations in climate negotiations. *Nature Climate Change*, November 18.
- Simmons, K. M., D. Sutter, and **R. A. Pielke, Jr.** (2012). Normalized tornado damage in the United States: 1950–2011. *Environmental Hazards*, December 5.
- **Weinkle, J.**, R. Maue and **R. A. Pielke, Jr.** (2012). Historical Global Tropical Cyclone Landfalls. *J. Clim.* 25 (13) 4729-4735, 1-July.

Other Publications

- **Berggren, J.** (2012). Analysis of Documented Needs for Climate Information in the Missouri River Basin. *Western Water Assessment Report*.
- **Boykoff, M. T.** (2012). Climate Change and the Media: The Climate Stories We Tell Ourselves. *This Side of the Pond*, Cambridge University Press Blog, April 2.

- **Boykoff, M. T.** (2012). A dangerous shift in Obama's 'climate change' rhetoric. *Washington Post*, January 27.
- **Boykoff, M. T.** (2012). Economies must grow for the climate change fight. *The Guardian*, January 16.
- **Boykoff, M. T.** (2012). Book Review, *Digitally Enabled Social Change: Activism in the Internet Age*. *Contemporary Sociology: A Journal of Reviews* 41 486-487.
- **Boykoff, M. T.** and B. Osnes (2012). Students sprout creative communications on climate change Inside the Greenhouse. *Skeptical Science*, August 15.
- **Crow, D. A.** and J. R. Stevens (2012). Framing Science: The Influence of Expertise and Jargon in Media Coverage. In J. Goodwin (Ed.), *Great Plains Society for the Study of Argumentation Conference: Between Scientists and Citizens*. Proceedings of a Conference at Iowa State University, June 1-2.
- **Crow, D. A.** and J. R. Stevens (2012). Citizen Engagement in Local Environmental Policy: Information, Mobilization, and Media. In H. Schachter and K. Yang (Ed.), *The State of Citizen Participation in America*, 131-162, Information Age Publishing.
- **Hale, B.** (2012). "Unfinished Project" Review of *The Incomplete Eco-Philosopher* by Anthony Weston. *Social Theory and Practice* 38(1), January.
- **Hale, B.** (2012). *The Veil of Opulence*. *New York Times* August 12.
- **Hale, B.** (2012). Getting the Bad Out: Remediation Technologies and Respect for Others. In *The Environment: Philosophy, Science, and Ethics*, W.P. Kabasenche, M. O'Rourke, and M.H. Slater (Ed.), 223-243, MIT Press.
- **Hale, B.** (2012). The World That Would Have Been: Moral Hazard Arguments Against Geoengineering. In *Engineering the Climate: The Ethics of Solar Radiation Management*, C.J. Preston (Ed.), 113-131, Lexington Books.
- **Klein, R.,** and **W. R. Travis** (2012). Socioeconomic Impacts and Adaptation Strategies: Assessing Research on Drought, Climate Change and Recreation. *Western Water Assessment White Paper*.
- Liverman, D., et al. (including **L. Dilling** and **M. T. Boykoff**) (2012). Climate Choices for a Sustainable Southwest. Chapter 18, in: *Assessment of Climate Change in the Southwest United States: a Technical Report Prepared for the U.S. National Climate Assessment*. A report by the Southwest Climate Alliance [Gregg Garfin, Angela Jardine, Robert



Population graph from "Assessment of Climate Change in the Southwest United States".

Merideth, Mary Black, and Jonathan Overpeck (eds.)]. Tucson, AZ: Southwest Climate Alliance.

- Newell, P., **M. T. Boykoff**, and E. Boyd (2012). *The New Carbon Economy: Constitution, Governance and Contestation*, 208 pp., Wiley-Blackwell, January.
- **Pielke, Jr., R. A.** (2012). Experten in Blogs. Positive und negative Aspekte. *Forschungsjournal* 25 (2) 79-83, June.
- **Pielke, Jr., R. A.** (2012). Mad Cows, Hurricane Sandy, and Why We Need Strong Science Assessors. *Bridges* 36, December.
- **Pielke, Jr., R. A.** (2012). Science, Sex, and the Olympics. *Bridges* 34, July.
- **Pielke, Jr., R. A.** (2012). The Origins of "Basic Research". *Bridges* 35, October.
- **Pielke, Jr., R. A.** (2012). The Great American Manufacturing Battle. *Bridges* 33, May 25.
- **Pielke, Jr., R. A.** (2012). Chief scientists are not superheroes. *Research Fortnight*, March 2.
- **Pielke, Jr., R. A.** (2012). Technology was the key factor in saving the ozone layer. *China Dialogue*, November 6.
- **Pielke, Jr., R. A.** (2012). Why is support for climate action dropping? *The Interpreter*, Lowy Institute for International Policy, June 13.

- **Pielke, Jr., R. A.** (2012). Climate of Failure. Foreign Policy August 6.
- **Pielke, Jr., R. A.** (2012). Climate spin is rampant. Denver Post, October 12.
- **Pielke, Jr., R. A.** (2012). Erroneous claim of a stair-step decline, Financial Times, 5 October.
- **Pielke, Jr., R. A.** (2012). Guest opinion: The enduring importance of higher education. Daily Camera, March 3.
- **Pielke, Jr., R. A.** (2012). The Politics of Prediction: A Review of Nate Silver's The Signal and the Noise. The Breakthrough Institute, September 17.
- **Pielke, Jr., R. A.** (2012). Hurricanes and Human Choice. Wall Street Journal, October 31.
- Simmons, K., D. Sutter, **R. A. Pielke, Jr.** (2012). Blown away: monetary and human impacts of the 2011 U.S. tornadoes. In C. Courbage and W.R. Stahel (Ed.), Extreme events and insurance: 2011 annus horribilis. The Geneva Reports: Risk and Insurance Research, March.
- **Travis, W. R.** (2012). Extreme Events as Pacemaker of Adaptation to Climate Change. Paper prepared for Adaptation Futures: 2012 International Conference on Climate Adaptation, Tucson, AZ.
- **Travis, W. R., K. Gangwer, and R. A. Klein** (2012). Assessing Measures of Drought Impact and Vulnerability in the Intermountain West. Western Water Assessment White Paper.
- **Travis, W. R., and R. A. Klein** (2012). Socioeconomic Impacts and Adaptation Strategies: Assessing Research on Quantification of Drought Impacts. Western Water Assessment White Paper.

TALKS AND EVENTS SPONSORED BY THE CENTER

(Center personnel bolded)

CSTPR NOONTIME SEMINAR SERIES (BOULDER, CO)

Spring

- March 5, Climate Change Adaptation in Alaska: Who Is Doing What?, Sarah Trainor, Alaska Center for Climate Assessment and Policy, University of Alaska Fairbanks.
- March 12, Characterizing, Creating and Governing Florida's Hurricane Risk, **Jessica Weinkle**, Environmental Studies Program, University of Colorado Boulder.
- March 19, Panel Discussion - A Hard Look at 'SREX': The IPCC Special Report On Extremes Special Report, Panel Convenor: **William Travis**, Center for Science and Technology Policy Research, University of Colorado Boulder.
- April 2, Making Climate Change Local: High-Resolution Downscaling of Extreme Precipitation Projections in the Colorado Front Range, Kelly Mahoney, Earth System Research Laboratory, National Oceanic and Atmospheric Administration.
- April 9, Wag the Dog: Ethics, Accuracy and Impact of the Science of Extremes in Political Debates, **Roger Pielke, Jr.**, Center for Science and Technology Policy Research, University of Colorado Boulder.
- April 30, Challenges in Attribution of Weather and Climate Extremes, Randall Dole, Earth System Research Laboratory, National Oceanic and Atmospheric Administration.



Randy Dole on April 30, 2012.



Mark Serreze on October 11, 2012.

Fall

- September 11, The Contrarian Discourse in the Blogosphere: What are Blogs Good For Anyway?, Franziska Hollender, Institute for Social Studies of Science, University of Vienna .
- October 11, Communicating Climate Change: Lessons Learned at the National Snow and Ice Data Center, Mark Serreze, National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences.
- October 18, The Mythology of the Green Revolution, **Roger Pielke, Jr.**, Center for Science and Technology Policy Research, University of Colorado Boulder.
- November 1, Mass Media in the Policy Process: Drafting a Comprehensive Approach to Policy Influence, **Deserai Anderson Crow**, Center for Science and Technology Policy Research, University of Colorado Boulder.
- November 15, Going Inside the Greenhouse: Exploring Creative Climate Communications in the Classroom, **Max Boykoff**, Center for Science and Technology Policy Research, University of Colorado Boulder and Beth Osnes, Theater and Dance, University of Colorado Boulder.
- December 13, State Of the Media and Implications for Climate Change Coverage, Tom Yulsman, School of Journalism and Mass Communication, University of Colorado Boulder.

SPRING ENVS COLLOQUIUM (BOULDER, CO) (CO-SPONSORED BY CSTPR)

- January 25, Collaborative Resilience: Moving Through Crisis To Opportunity, Bruce Evan Goldstein, Planning and Design, University of Colorado Denver. Commentators: Jonathan Hughes, Environmental

Studies and Economics Department, University of Colorado Boulder; Emily Graham, Environmental Studies, University of Colorado Boulder.

- February 2, Producing Wildlife: Managing A Conservation Reserve In India During The Anthropocene, Paul Robbins, School of Geography and Development, University of Arizona.
- February 6, Observing Changing Ecological Diversity In The Anthropocene: The Science Of Observation, David Schimel, National Ecological Observatory Network.
- February 16, Resurgence - Successional Dynamics Of Tropical Forests, Robin Chazdon, Ecology and Evolutionary Biology, University of Connecticut.
- February 22, Fostering Understanding Of How Ecological Systems Work: Plans For Teaching, Research, And Mentoring In Environmental Studies, Daniel Doak, Department of Zoology and Physiology, University of Wyoming.
- April 22, Managing \$30 Billion For Sustainability: Tracking, Evaluating And Improving 'Fast Start' Climate Change Finance, J. Timmons Roberts, Center for Environmental Studies, Sociology and Environmental Studies, Brown University, Commentators: Ashwin Ravikumar, Environmental Studies, University of Colorado Boulder Carol Wessman, Environmental Studies & Ecology and Evolutionary Biology, University of Colorado Boulder.

OTHER TALKS AND PRESENTATIONS BY CENTER PERSONNEL

Max Boykoff

- Boykoff, M. Fight semantic drift: Interrogating public discourse(s) and the spectrum of environmental policy action. Securitization of Water Discourse - An

International Workshop and Public Event Organized by the Jerusalem Water Group of the Hebrew University as part of the EU CLICO Project, December 17.

- Boykoff, M. Is Communicating Climate Change a Lost Cause? Panel discussion, Society of Environmental Journalists, Lubbock, Texas, October 19.
- Boykoff, M. Who Speaks for the Climate? Program on Writing and Rhetoric and the Institute for Arctic and Alpine Research at the International Conference on Culture, Politics and Climate Change, Boulder, Colorado, September 13.
- Boykoff, M. National Center for Atmospheric Research 'Climate Communications Roundtable', Boulder, CO, September 13.
- Boykoff, M. Inside the Greenhouse project, Peak to Peak workshop on sustainability, Boulder, CO, August 21.
- Boykoff, M. What have future generations done for me lately? Towards accountable sustainability in the 21st century. 2012 Greenhouse Scholars Symposium, August 13.
- Boykoff, M. The emergence of climate contrarianism as a 'wise (use)' social movement. Second ISA Forum of Sociology in Buenos Aires, Argentina, August 3.
- Boykoff, M. Who speaks for the climate? Making sense of media reporting on climate change (in the context of the U.S. Presidential Election). Essen Conference on the Cultural Dimensions of Climate Change and the Environment in North America, June 29.



Max Boykoff at the Boulder Book Store, February 8.

- Boykoff, M. Who Speaks for the Climate? Making sense of media reporting on climate change. Denver Café Scientifique, Denver, CO, June 12.
- Boykoff, M. Rhetoric of Climate Change Deniers. Program for Writing and Rhetoric, University of Colorado, Boulder, May 16.
- Boykoff, M. Communicating the Climate Change Crisis. World Renewable Energy Forum, Denver, CO, May 15.
- Boykoff, M. Visualizing Climate Change: International Perspectives on Adaptation and Mitigation. Rachel Carson Center for Environment and Society's workshop on Eco-Images: Altering Environmental Discussions and Political Landscapes, Munich, April 18.
- Boykoff, M. Who Speaks for the Climate? Keynote address, DePaul University, Chicago, Ill, April 13.
- Boykoff, M. Who Speaks for the Climate? Institute for Arctic and Alpine Research (INSTAAR), Boulder, Colorado, March 19.
- Boykoff, M. Cultural Politics and Climate Change panel for science communication and public understanding, Ocean Sciences Meeting (OSM) and Association for the Science of Limnology and Oceanography (ASLO) Salt Lake City, UT, February 21.
- Boykoff, M. Who Speaks for the Climate? Boulder Bookstore, Boulder, CO, February 8.

Deserai Crow

- Crow, D.A. The Role that Media Play in Influencing Renewable Energy Policy. Renewable Energy Law and Policy Summit: Driving the Development of Renewable Energy, University of Denver Sturm College of Law, Denver, CO, October.
- Crow, D.A. The Narrative Policy Framework: Broadening the Framework for Greater Policy Relevance. Workshop on Policy Process Research Seminar, School of Public Affairs, University of Colorado Denver, June.

Lisa Dilling

- Dilling, L. Climate Change: Understanding decision making and the role of information. ENVIS Colloquium, Boulder, CO, October 8.
- Dilling, L. and R. Klein. The Colorado Basin River Forecast Center and the Decision Making Process. Annual Stakeholders Meeting of the Western Water Assessment, Boulder, CO, October 2.
- Dilling, L., J. Berggren, A. Ravikumar and K. Andersson. Drivers of Adaptation: Perceptions and responses to

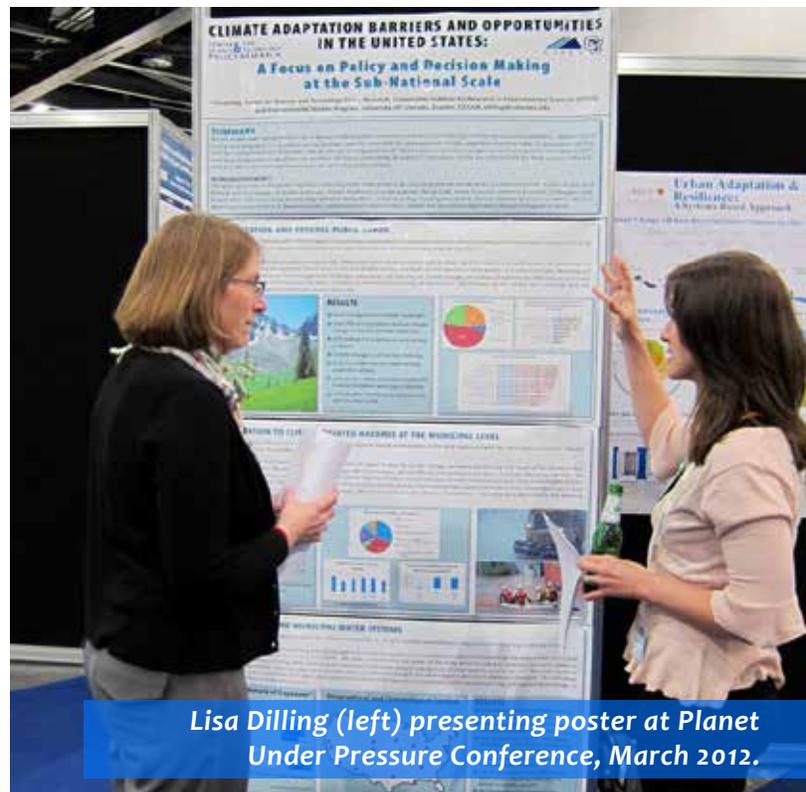
hazards by municipalities in Colorado, Wyoming and Utah. Annual Stakeholder Meeting for Western Water Assessment, Boulder, CO, October 2.

- Archie, K., L. Dilling, J. Milford, and F. Pampel. Climate Change Adaptation in the Western U.S.: Differences in top-down vs bottom-up policy responses. International Conference on the Culture and Politics of Climate Change, University of Colorado Boulder, September 15.
- Dilling, L. Invited Plenary Presentation: SREX and moving forward with climate adaptation. Annual Natural Hazards Research and Applications Workshop. Broomfield, CO, July 15.
- Dilling, L., M. Daly, R. Klein, O. Wilhelmi and W. Travis. The dynamics of vulnerability: Why adapting to climate variability may not always prepare us for climate change. Climate Adaptation Futures: Second International Climate Change Adaptation Conference 2012. Tucson, AZ, May 29-31.
- Dilling, L. and R. Romsdahl. Defining adaptation success in natural resource management. Invited panel presentation at Climate Adaptation Futures: Second International Climate Change Adaptation Conference 2012. Tucson, AZ, May 29-31.
- Dilling, L. Ownership of the goal of producing usable science. Invited Panel presentation at Climate Adaptation Futures: Second International Climate Change Adaptation Conference 2012. Tucson, AZ, May 29-31.
- Dilling, L., K. Andersson, A. Ravikumar, and C. Brown. Local adaptation strategies: Perceptions and responses to hazards by municipalities in Colorado, Wyoming and Utah. ICARUS Conference on Climate Adaptation, New York, New York, May 19-21.
- Dilling, L., M. Daly, R. Klein, O. Wilhelmi, and W. Travis. Dynamics of Vulnerability: Why adapting to climate variability may not always prepare us for climate change. ICARUS Conference on Climate Adaptation, New York, New York, May 19-21.
- Dilling, L. Invited Presentation: Some [possibly] heretical notions on what motivates policy action and what the role of communication might be. Forum on the Challenge of Communicating the Climate Change Crisis. World Renewable Energy Forum, Denver, Colorado, May 15.
- Dilling, L. Climate adaptation barriers and opportunities in the United States: A focus on policy and decision making at the sub-national scale. Planet Under Pressure International Conference, London, United Kingdom, March 26-29.

- Dilling, L., K. Dow, M.C. Lemos, K. Lackstrom, J. Berggren, S. Kalafatis, B. Haywood, and R. Henry. Invited Presentation: Toward a framework for assessing stakeholder needs in responding to climate change across spatial and temporal scales. American Meteorological Society Annual Meeting, New Orleans, LA, January 22-26.

Ben Hale

- Hale, B. Moral Friction. Colorado State University, November 2.
- Hale, B. Sustainability and Game Theory Workshop, Boston, MA, May 19.
- Hale, B., A. Hermans and A. Lee. Ecological Management and the Substitution Problem: Wolf Reintroduction in Rocky Mountain National Park (poster presentation), CIRES Rendezvous. Boulder, CO, April 24.
- Hale, B. Fixing the Wrong Wrong: Geoengineering and the End of the World, Institute for Ethics and Public Affairs, San Diego State University, April 12.
- Hale, B. Colgate Workshop on Mass Extinction. Colgate University. March 17-18.
- Hale, B., A. Hermans and A. Lee. Climate Adaptation, Moral Reparation, and the Baseline Problem, Buffalo Workshop on Ethics and Adaptation. University at Buffalo, March 10-11.
- Hale, B. Launch of CILE, the Center for Islamic Legislation and Ethics, Doha, Qatar. Jan 14.



Roger Pielke, Jr.

- Pielke, R.A., Jr. Scientific Integrity and Political Conflict: Are they Compatible? 10th anniversary conference of the German Federal Institute for Risk Assessment – the Bundesinstitut für Risikobewertung, Berlin, Germany, November 20.
- Pielke, R.A., Jr. Disasters and Climate Change, Center for Environmental Journalism, University of Colorado, Boulder, CO, November.
- Pielke, R.A., Jr. presented energy and environment work at CIRES Energy and Environment Initiative Workshop, University of Colorado, Boulder, CO, November 16.
- Pielke, R.A., Jr. The Impacts of the 2011 US Tornadoes, Kansas Emergency Management Association, Topeka, KS, September 12 .
- Pielke, R.A., Jr. The Mythology of the Green Revolution, University of Missouri, September 11.
- Pielke, R.A., Jr. Scale, the Economy, and Decarbonization, I’CAMP Summer School, University of Colorado Law School, Boulder, CO, August 2.
- Pielke, R.A., Jr. Course on Climate Adaptation Policy, the Nordic Centre of Excellence for Strategic Adaptation Research (NORD-STAR), University of Iceland, Reykjavik, Iceland, August 13-17.
- Pielke, R.A., keynote lecture at the CUAHSI 3rd Biennial Colloquium on Hydrologic Science and Engineering: Policy Relevant Science: A Minefield where Uncertainty, Ignorance and Politics Meet, July 16.
- Pielke, R.A., Jr. Energy and Climate Change: Understanding Scale, The Breakthrough Institute, Oakland, CA, June.
- Pielke, R.A., Jr. Catastrophic Risk Update 2012: Hurricanes, Earthquakes and Terror, AM Best, New Jersey, May 22.
- Pielke, R.A., Jr. The Triumph of Expertise, Linköping Universitet, Sweden, May 24.
- Pielke, R.A., Jr. The Climate Fix, Torch Club, Denver, CO, May.
- Pielke, R.A., Jr. An Overview of The Honest Broker, Mercator Foundation, April.
- Pielke, R.A., Lessons from 50 Years of Science Advice to the U.S., President Berlin-Brandenburgische Akademie der Wissenschaften, April 17.
- Pielke, R.A., Jr. Lesson From 50 years of Science Advice to the U.S. President, University of Edinburgh, Edinburgh, Scotland, April 19.
- Pielke, R.A., Jr. participated in a two-day workshop on “Knowledge production for sustainable development”, Maastricht University, the Netherlands, April 12-13.
- Pielke, R.A., Jr. Climate, Disasters and Politics, University of Colorado, Department of Geography, March.
- Pielke, R.A., Jr. The use, abuse and misuse of expertise, The Inaugural Asia Pacific Science Policy Studies (SPS) Research Conference: “Tahua nuku, tahua rangi”, Victoria University of Wellington, New Zealand, February 10.
- Pielke, R.A., Scientists in Policy and Politics, Lowy Institute, Sydney, Australia, February 7.
- Pielke, R.A., What Scientists and Politicians Won’t Tell You About Global Warming, Department of Innovation, Industry, Science, Research and Tertiary Education, Canberra, Australia, February 2.
- Pielke, R.A., Jr. How can FIFA be Held Accountable? Sydney University of Technology, February.

Bill Travis

- Travis, W.R., Extreme Events as Pacemaker of Adaptation to Climate Change. Paper prepared for Adaptation Futures: 2012 International Conference on Climate Adaptation, Tucson, AZ, May.
- Huisenga, M., W.R. Travis, and K. Clifford, An Agent-Centered Decision-Analytic Approach to Climate Adaptation (poster presentation), Society For Risk Analysis annual meeting, San Francisco, December.

Jessica Weinkle

- Weinkle, J., Model Me This: What is Florida’s hurricane risk? National Hurricane Center, Miami, FL, December 17.

ORGANIZATION OF WORKSHOPS, CONFERENCES, SYMPOSIA AND MEETINGS

- Boykoff, M. Session co-organizer and presenter in sessions at the Association of American Geographers, 23-26 February, New York, New York.
- Boykoff, M. Co-organizer & steering committee member, CU-Boulder ‘Peak to Peak Sustainability Workshop’.
- Crow, D. Developed and organized the International Conference on Culture, Politics, and Climate Change, CU-Boulder, September 13-15.



Audience members at the International Conference on Culture, Politics, and Climate Change.

- Hale, B. Coordinated with Alastair Norcross (Philosophy) the RoME V: the Fifth Annual Rocky Mountain Ethics Conference, August 9-12.

OTHER GUEST SPEAKERS

- Holdren, J. Science and Technology Policy in the Obama Administration. Keynote address, CSTPR 10th Anniversary Celebration, Boulder, CO, September 27.
- Tang, S. Usable science? The UK Climate Projections 2009 and Decision Support for Adaptation Planning, Boulder, CO, September 6.

MEDIA REFERENCES

Center personnel were quoted, cited, interviewed or referred to 87 times in numerous media including ABC News, Atlantic, Christian Science Monitor, Daily Camera, Denver Post, Financial Post, Financial Times, Foreign Policy, Houston Chronicle, Huffington Post, Kansas City Star, National Review, Nature, New York Times, NPR, Scientific American, Spiegel, Toronto Star, Tucson Citizen, USA Today, Wall Street Journal, and Washington Post. A complete list with links to articles is located here: <http://sciencepolicy.colorado.edu/news/in-the-news.html>.

SERVICE ACTIVITIES

MAX BOYKOFF

- Royal Geographical Society of the Institute for British Geographers
- Association for Environmental Studies and Sciences (AESS)
- Association of American Geographers
- The Society for the Social Studies of Science
- International Studies Association member

- Business as Usual films, EcoShift
- Climate Central, EcoShift
- University of Colorado co-organizer of UN observer credentialing (with Prof Jim White)
- University of Colorado Forum on Science, Ethics and Policy (FOSEP) Faculty Advisor
- University of Colorado Sustainability committee advisory member
- University of Colorado Geography Dept colloquium committee
- Associate Editor, *Ethics, Policy & Environment*
- Editorial Board, *Environmental Communication: A Journal of Nature and Culture*
- Associate Deputy Editor, *Climatic Change*
- Contributing Editor, *Los Angeles Review of Books*
- Board Member on Board of Directors – Three Americas solidarity group (Santa Cruz, Calif)
- Coordinated University of Colorado-Boulder ‘Campus to Congress’ activities (in coordination with Bard College) for visit of Rep Jared Polis to the CIRES Center for Science and Technology Policy Research, April

DESERAI CROW (May - December 2012)

- Center for Environmental Journalism: Associate Director. Served as a reviewer and interviewer for the Ted Scripps Fellows in Environmental Journalism.
- Executive Committee, Center for Science and Technology Policy Research
- Sustainability Teaching Workshop, University of Colorado Boulder, August 20-21

LISA DILLING

- Associate Director, CSTPR
- CIRES Fellow (governance meetings)
- CIRES Career Track Committee
- Executive Committee, ENVIS
- Undergraduate Committee, ENVIS
- CIRES Distinguished Lecture Committee
- ENVIS PUEC for Deseraí Crow
- Red Cross/Red Crescent Climate Centre Internship Program
- Affiliate, Renewable and Sustainable Energy Institute (RASEI)
- Affiliate, Center of the American West
- Chair of Boulder County POSAC
- Advisory Board, Decision Center for a Desert City, Arizona State University, Tempe AZ
- Member of Board of Scientific Counselors, Office of Research and Development, U.S. EPA
- Member of Western Water Assessment Executive Board, University of Colorado Boulder
- Advisory Board, Advancing Knowledge Systems to Inform Climate Adaptation Decisions (ICAD), European Research Council project based at University of Exeter, UK
- Associate editor, *Ethics, Policy & Environment*

BEN HALE

- Elected Vice-President, International Society of Environmental Ethics (ISEE)
- Executive Committee, Center for Science and Technology Policy Research
- Environmental Studies Program, Director of Graduate Studies
- Executive Steering Committee: Center for Values and Social Policy
- Executive Committee, Critical Theory Certificate
- Committee Member, Taskforce on Restricted, Proprietary and Classified Research, through the Vice-Chancellor for Research's Office
- Co-editor, *Ethics, Policy & Environment* (with Andrew Light), Taylor and Francis/Routledge Press, Three issues per year
- Referee for Environmental Values
- Referee for WIRES-Climate Change
- Referee for Public Affairs Quarterly
- Referee for Environmental Health
- Assisted with grad student recruitment

- Videotape Consultation of ENVIS 4800
- Letter Writer, Henry Pickford, Teaching Evaluation

ROGER PIELKE, JR.

- Senior Visiting Scholar, Arizona State University, Consortium for Science, Policy and Outcomes
- Senior Fellow, The Breakthrough Institute (a San Francisco-based think tank focused on progressive solutions to environmental issues)
- Member, Science Advisory Board, CliSAP, University of Hamburg, Germany
- Member, Advisory Committee, Pacific ENSO Applications Center
- Visiting Senior Fellow, Mackinder Institute, London School of Economics
- Research Fellow, Risk Frontiers, Macquarie University, Sydney, Australia
- NRC Committee on Responsible Science
- ENVIS By-Laws Revision (2012)
- ENVIS PUEC 2012 Boykoff
- Director, Graduate Certificate Program in Science and Technology Policy
- Associate Editor, *Natural Hazards Review*, American Society of Civil Engineers
- Member, Editorial Board, *Policy Sciences*
- Member, Editorial Board, *Global Environmental Change*
- Member, Editorial Board, *Environmental Science and Policy*
- Member, Editorial Board, *Darwin*
- Member, Editorial Board, *Water Resources Research*
- Member, Editorial Board, *Environmental Hazards*
- Member of Editorial Board, *Minerva*
- Associate editor, *Ethics, Policy & Environment*

BILL TRAVIS

- Geography Department Honors Representative
- Member, Fellows Executive Committee, CIRES
- Affiliate Faculty, Environmental Studies Program
- Member, Executive Committee for the Western Water Assessment
- Chair, Geography Department Undergraduate Studies Committee
- Fellow, CIRES
- Trustee, The Nature Conservancy, Colorado Chapter
- Associate editor, *Ethics, Policy & Environment*

GRANT ACTIVITY

PROJECT TITLE: Climate Corps (Boycoff)

SOURCE: University of Colorado Boulder

AMOUNT: \$8,000

START DATE: 2011

END DATE: 2013

PROJECT TITLE: Inside the Greenhouse: Utilizing Media to Communicate Positive Solutions for Climate Change (Boycoff)

SOURCE: University of Colorado Boulder

AMOUNT: \$11,000

START DATE: 2012

END DATE: 2012

PROJECT TITLE: Evaluating adaptive policies for urban water resource management: Interactions between short-term drought responses and long-term climate change adaptation strategies (Dilling)

SOURCE: Sectoral Applications Research Program (NOAA)

AMOUNT: \$298,255

START DATE: August 1, 2010

END DATE: July 31, 2013

PROJECT TITLE: Carbon management on public lands in the Intermountain West: Multi-scale analysis of carbon stock responses to human and natural disturbances (Dilling, co-PI)

SOURCE: US Department of Agriculture

AMOUNT: \$717,927

START DATE: 2011

END DATE: 2014

PROJECT TITLE: Understanding the Drivers of Adaptation at the Municipal Level in CO, WY and UT (Dilling)

SOURCE: Western Water Assessment (NOAA)

AMOUNT: \$126,467

START DATE: 2011

END DATE: 2013

PROJECT TITLE: Collaborative Research: Deliberation and Communication--Building Practical Skills in the Next Generation of Environmental Scientists (Hale)

SOURCE: National Science Foundation (NSF)

AMOUNT: \$99,967

START DATE: October 1, 2012

END DATE: September 30, 2015

PROJECT TITLE: A Socioeconomic Impacts and Adaptation Strategies Clearinghouse (Klein and Travis)

SOURCE: Western Water Assessment (NOAA)

AMOUNT: \$36,250

START DATE: June 1, 2011

END DATE: May 31, 2012

PROJECT TITLE: The Colorado Basin River Forecast Center and the Decision Making Process (Klein and Dilling)

SOURCE: Western Water Assessment (NOAA)

AMOUNT: \$30,343

START DATE: August 1, 2012

END DATE: June 30, 2013

PROJECT TITLE: How Philanthropy can Improve its Effectiveness in Policy and Politics (Pielke)

SOURCE: Nathan Cummings Foundation

AMOUNT: \$100,000

START DATE: December 1, 2012

END DATE: November 30, 2013

PROJECT TITLE: Building Climate Science into Land and Water Conservation Planning and Decision-Making in the American Southwest (Travis)

SOURCE: NOAA

AMOUNT: \$195,500

START DATE: 2012

END DATE: 2014

CENTER & FOR
SCIENCE & TECHNOLOGY
POLICY RESEARCH

CIRES Center for Science and Technology Policy Research
<http://sciencepolicy.colorado.edu>