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IOWA CLIMATE STATEMENT: THE DROUGHT OF 2012

November 19, 2012

As science faculty and research staff at Iowa universities and colleges, we have confidence in recent findings that climate change is real and having an impact on the economy and natural resources of Iowa. We feel that it is important for citizens of Iowa to understand its implications. Iowans are living with climate change now and it is costing us money already. The drought that we are currently experiencing is consistent with an observed warmer climate, although science cannot say with certainty that the drought of 2012 was caused directly by human activities. The following observations support the case that more droughts and floods are likely in the future.

1. Globally over the past 30 years, there is clear statistical evidence that extreme high temperatures are occurring disproportionately more than extreme low temperatures. The climate likely will continue to warm due to increasing global emissions and accumulation of greenhouse gases.

2. In a warmer climate, wet years get wetter and dry years get dryer. And dry years get hotter - that is precisely what happened in Iowa this year. We can expect Iowa to experience higher temperatures when dry weather patterns predominate. The latest science, based on overwhelming lines of physical evidence, indicates we can expect dry periods to be more frequent as soon as the 2020s.

3. Iowa also has experienced an increasing frequency of intense rains over the past 50 years (Iowa Climate Change Impacts 2010, www.dnr.gov), likely due to a higher surface evaporation in a warmer world. Because of these extremes in precipitation (drought and flood), Iowans will increasingly need infrastructure investments to adapt to climate fluctuations while developing and implementing mitigation.

As global citizens, Iowans should be a part of the solution. We can prosper, create jobs, and provide an engine for economic growth in the process (Iowa Climate Change Advisory Committee 2008 report, www.iaclimatemanage.us). Iowa should lead innovation in reducing greenhouse gas emissions, improve resilience in agriculture and communities, and move towards greater energy efficiency and increased use of renewable energy.

Signed by

Gene Takle
Director, Climate Science Program
Professor of Geological and Atmospheric Sciences
Department of Agronomy
Iowa State University

Jerald Schnoor
Co-Director
Center for Global and Regional Environmental Research
University of Iowa

Greg Carmichael
Co-Director
Center for Global and Regional Environmental Research
University of Iowa

David Courard-Hauri
Associate Professor
Environmental Science and Policy Program
Drake University

Chris Anderson
Research Assistant Professor
Climate Science Program
Iowa State University

Neil Bernstein
Chair, Department of Natural and Applied Sciences
Mount Mercy University

Endorser affiliations are for identification purposes only and do not reflect views of their academic institutions.
Marc P. Armstrong  
Professor and CLAS Collegiate Fellow  
Department of Geography  
University of Iowa

Mark Aronson  
Department of Biology  
Scott Community College

Richard G. Baker  
Professor Emeritus  
Department of Geoscience  
University of Iowa

Paul E. Bartelt  
Professor  
Department of Biology  
Waldorf College

Philip W. Becraft  
Professor of Genetics & Agronomy  
iowa State University

David Bennett  
Professor and Chair  
Department of Geography  
University of Iowa

Russ Benedict  
Professor and Chair  
Biology Department  
Central College

Peter Berendzen  
Associate Professor  
Department of Biology  
University of Northern Iowa

Art Bettis  
President, American Quaternary Association, Environmental Sciences Program  
Department of Geoscience  
University of Iowa

Ryan Bezy  
Assistant Professor of Biology  
Dept. of Natural & Applied Sciences  
Mount Mercy University

Diane Birt  
Distinguished Professor  
Food Science and Human Nutrition  
iowa State University

Andrea Bixler  
Associate Professor  
Department of Biology  
Clarke University

Kimran Buckholz  
Adjunct Instructor  
Department of Biology  
University of Northern Iowa

Garry R. Buettner  
Professor  
Free Radical and Radiation Biology Department of Radiation Oncology  
College of Medicine  
University of Iowa

Aaron Bunker  
Department of Biology  
Morningside College

Beth E. Caissie  
Assistant Professor  
Department of Geological and Atmospheric Sciences  
Iowa State University

David G. Campbell  
Professor of Biology and Chair of Environmental Studies  
Department of Biology  
Grinnell College

Cliff Chancey  
Professor and Head  
Department of Physics  
University of Northern Iowa

Silvia Cianzio  
Professor  
Department of Agronomy  
iowa State University

Russell Ciochon  
Director of Museum Studies  
Department of Anthropology  
University of Iowa

Charles Connerly  
Professor and Director  
School of Urban and Regional Planning  
University of Iowa

James Cornette  
Emeritus Professor of Mathematics  
iowa State University

Richard Cruse  
Professor and Director of the Iowa Water Center  
Department of Agronomy  
iowa State University

Dennis Dahms  
Professor  
Quaternary Geochronology & Paleoenvironment, Department of Geography  
University of Northern Iowa

John Dawson  
Associate Professor  
Department of Mathematics  
Kirkwood Community College

Robert L. De Haan  
Chair, Environmental Studies Department  
Professor of Biology  
Dordt College

Diane Debinski  
Professor  
Ecology, Evolution, and Organismal Biology  
iowa State University

Rhawn Denniston  
Chair, Environmental Studies Program, Associate Professor of Geology  
Department of Geology  
Cornell College

Gary Donnermeyer  
Biology Professor  
Math-Science Department  
Kirkwood Community College

Barbara Eckstein  
Professor of English and International Studies  
Department of English  
iowa State University

Kamyar Enshayan  
Director, Center for Energy & Environmental Education  
University of Northern Iowa

Janet Ewart  
Associate Professor of Biology  
Division of Health and Life Sciences  
William Penn University

Steven L. Fales  
Professor Emeritus  
Department of Agronomy  
iowa State University

Elizabeth H. Field  
Professor, Internal Medicine  
Division of Immunology  
iowa State University

R. William Field  
Professor  
Department of Occupational & Environmental Health, Department of Epidemiology, College of Public Health  
iowa State University

Andrew A. Forbes  
Assistant Professor  
Department of Biology  
iowa State University

Cory Forbes  
Assistant Professor of Science Education  
College of Education  
iowa State University

Endorser affiliations are for identification purposes only and do not reflect views of their academic institutions.
Johanna Foster  
Associate Professor  
Department of Biology  
Wartburg College

Suzanne Hendrich  
Faculty Senate President  
Department of Biology  
Iowa State University

Brian Hornbuckle  
Associate Professor  
Department of Agronomy  
Iowa State University

Keri C. Hornbuckle  
Professor, Department of Civil & Environmental Engineering  
Associate Dean for Academic Programs, College of Engineering  
University of Iowa

Charles Glatz  
Professor  
Chemical and Biological Engineering  
Iowa State University

Vicki F. Grassian  
Professor  
Department of Chemistry  
University of Iowa

David Grewell  
Associate Professor  
Agriculture and Biosystems Engineering  
Iowa State University

Bill Gutowski  
Professor of Meteorology  
Department of Geological and Atmospheric Sciences  
Iowa State University

Earl Hammond  
Professor Emeritus  
Iowa State University

Brian T. Hazlett  
Professor  
Department of Biology  
Briar Cliff University

Emily Heaton  
Assistant Professor, Biomass Crop Production  
Department of Agronomy  
Iowa State University

Suzanne Hendrich  
Faculty Senate President  
Department of Biology  
Iowa State University

Richard Honzato  
Professor  
Biochemical, Biophysics and Molecular Biology  
Iowa State University

Johanna Foster  
Associate Professor  
Department of Biology  
Wartburg College

Jack Gittinger  
Professor  
Science Education  
Simpson College

Charles Glatz  
Professor  
Chemical and Biological Engineering  
Iowa State University

Vicki F. Grassian  
Professor  
Department of Chemistry  
University of Iowa

David Grewell  
Associate Professor  
Agriculture and Biosystems Engineering  
Iowa State University

Bill Gutowski  
Professor of Meteorology  
Department of Geological and Atmospheric Sciences  
Iowa State University

Earl Hammond  
Professor Emeritus  
Iowa State University

Brian T. Hazlett  
Professor  
Department of Biology  
Briar Cliff University

Emily Heaton  
Assistant Professor, Biomass Crop Production  
Department of Agronomy  
Iowa State University

Suzanne Hendrich  
Faculty Senate President  
Department of Biology  
Iowa State University

Richard Honzato  
Professor  
Biochemical, Biophysics and Molecular Biology  
Iowa State University

Endorser affiliations are for identification purposes only and do not reflect views of their academic institutions.
M. Patrick McAdams  
Assistant Professor of Geology  
Division of Health and Life Science  
William Penn University

Dale W. Olson  
Professor of Physics  
Department of Physics  
University of Northern Iowa

Melanie H. Sadeghpour  
Program Chair, Environmental Science  
Co-Chair, DMACC Sustainability Task Force 
Associate Professor, Environmental Science and Ecology 
Des Moines Area Community College

David McCullough  
Professor of Biology, Coordinator  
Environmental Studies  
Wartburg College

David Osterberg  
Associate Clinical Professor  
Occupational and Environmental Health  
University of Iowa

Paula Sanchini  
Professor  
Department of Biology  
Coe College

Laura C. Merrick  
Lecturer  
Department of Agronomy  
Iowa State University  
Fernando Miguez  
Department of Agronomy  
Iowa State University

Reuben J. Peters  
Professor & Director of Graduate Education  
Department of Biochemistry, Biophysics, & Molecular Biology  
Iowa State University

Michael Scherer  
Professor and DEO  
Civil & Environmental Engineering  
University of Iowa

Siobahn Morgan  
Head, Department of Earth Science  
University of Northern Iowa

Laura Peterson  
Assistant Professor  
Department of Environmental Studies and Chemistry  
Luther College

Patrick S. Schnable  
Baker Professor of Agronomy  
Director, Center for Plant Genomics  
Iowa State University

Rasika G. Mudalige  
Associate Professor  
Department of Natural and Applied Sciences  
University of Dubuque

Gary Phillips  
Environmental Studies Department  
Iowa Lakes Community College

Holmes A. Semken  
Professor Emeritus  
Department of Geoscience  
University of Iowa

Marian Muste  
Research Engineer and Adjunct Professor  
IIHR-Hydroscience & Engineering  
University of Iowa

Jim Raich  
Professor  
Department of Ecology, Evolution and Organismal Biology  
Iowa State University

Anupam Sharma  
Assistant Professor of Aerospace Engineering  
Iowa State University

Connie Mutel  
Senior Science Writer  
IIHR-Hydroscience & Engineering  
University of Iowa

Mark Rasmussen  
Director  
Leopold Center for Sustainable Agriculture  
Iowa State University

David A. Shealer  
Associate Professor of Biology  
Loras College

Robert Mutel  
Professor of Astronomy  
Department of Physics and Astronomy  
University of Iowa

Mark Reagan  
Professor & DEO  
Department of Geoscience  
University of Iowa

Mack Shelley  
Professor of Statistics Political Science, and Educational Leadership and Policy Studies  
Iowa State University

Maurine Neiman  
Assistant Professor  
Department of Biology  
University of Iowa

Ryan Rehmeier  
Director  
Environmental Science and Sustainability Studies; Biology  
Simpson College

William Simpkins  
Professor of Hydrogeology  
Department of Geological and Atmospheric Sciences  
Iowa State University

Marit Nilsen-Hamilton  
Professor  
Biochemistry, Biophysics, and Molecular Biology  
Iowa State University

Peter Reilly  
Anson Marston Distinguished Professor in Engineering  
Chemical and Biological Engineering  
Iowa State University

Daryl Smith  
Director  
Tallgrass Prairie Center  
University of Northern Iowa

Fred Ochs  
Professor of Chemistry & Earth Science  
Kirkwood Community College  
Steve L. O’Kane, Jr.  
Professor  
Department of Biology  
University of Northern Iowa

Larry Robertson  
Professor  
Department of Occupational & Environmental Health  
University of Iowa

Scott Spak  
Assistant Professor  
Urban and Regional Planning and the UI Public Policy Center  
University of Iowa

Anson Marston Distinguished Professor in Engineering  
Chemical and Biological Engineering  
Iowa State University

Thomas Rosburg  
Professor of Biology, Department of Biology  
Drake University

Steven R. Spangler  
Professor  
Department of Physics and Astronomy  
University of Iowa

Endorser affiliations are for identification purposes only and do not reflect views of their academic institutions.
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin St. Clair</td>
<td>Professor</td>
<td>Department of Chemistry</td>
<td>Coe College</td>
</tr>
<tr>
<td>Charles Stanier</td>
<td>Associate Professor of Chemical and Biochemical Engineering</td>
<td>College of Engineering</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Betsy Stone</td>
<td>Assistant Professor</td>
<td>Department of Chemistry</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Robert Summerfelt</td>
<td>Professor Emeritus</td>
<td>Department of Natural Resource Ecology and Management</td>
<td>Iowa State University</td>
</tr>
<tr>
<td>Keith Summerville</td>
<td>Environmental Science and Policy</td>
<td>Drake University</td>
<td></td>
</tr>
<tr>
<td>Geb Thomas</td>
<td>Associate Professor</td>
<td>Mechanical and Industrial Engineering</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Peter S. Thorne</td>
<td>Professor and Head</td>
<td>Department of Occupational &amp; Environmental Health, Director, Environmental Health Sciences Research Center</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Bill Stigliani</td>
<td>Professor of Environmental Science</td>
<td>Center for Energy &amp; Environmental Education</td>
<td>University of Northern Iowa</td>
</tr>
<tr>
<td>Sara Sybesma Tolsma</td>
<td>Professor</td>
<td>Department of Biology</td>
<td>Northwestern College</td>
</tr>
<tr>
<td>H.S. Udaykumar</td>
<td>Professor</td>
<td>Mechanical and Industrial Engineering</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Richard L. Valentine</td>
<td>Professor</td>
<td>Department of Civil and Environmental Engineering</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Michael Walter</td>
<td>Associate Professor</td>
<td>Department of Biology</td>
<td>University of Northern Iowa</td>
</tr>
<tr>
<td>Al Wanamaker</td>
<td>Assistant Professor</td>
<td>Department of Geological and Atmospheric Sciences</td>
<td>Iowa State University</td>
</tr>
<tr>
<td>Larry Weber</td>
<td>Director, Edwin B. Green Chair in Hydraulics</td>
<td>IIHR Hydroscience and Engineering</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Paul Weihe</td>
<td>Associate Professor</td>
<td>Biology &amp; Environmental Science - Biology Department</td>
<td>Central College</td>
</tr>
<tr>
<td>Brian Wilsey</td>
<td>Associate Professor</td>
<td>Department of Ecology, Evolution and Organismal Biology</td>
<td>Iowa State University</td>
</tr>
<tr>
<td>Sally Wilson</td>
<td>Associate Professor</td>
<td>Department of Biology</td>
<td>Iowa Valley Community College District</td>
</tr>
<tr>
<td>Danielle Wirth</td>
<td>Adjunct Assistant Professor</td>
<td>Environmental Science and Policy Program</td>
<td>Des Moines Area Community College</td>
</tr>
<tr>
<td>Peter T. Wolter</td>
<td>Assistant Professor</td>
<td>Department of Natural Resource Ecology and Management</td>
<td>Iowa State University</td>
</tr>
<tr>
<td>Mark A. Young</td>
<td>Professor</td>
<td>Department of Chemistry</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Catherine Zeman</td>
<td>Professor, Environmental Health Division</td>
<td>Health Division</td>
<td>University of Northern Iowa</td>
</tr>
</tbody>
</table>