

Kate A. Brauman, Ph.D.

University of Minnesota, Twin Cities

Institute on the Environment

Lead Scientist, Global Water Initiative

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1954 Buford Ave, 325 LES Bldg

St Paul, MN 55108

<http://z.umn.edu/brauman>

Education & Employment

Stanford University, Stanford, CA

Ph.D. 2010

Emmett Interdisciplinary Program in Environment and Resources

Emphasis in Hydrologic Ecosystem Services

Natural Resources Defense Council, New York, NY

2001 - 2004

Membership and Public Education Senior Associate

Developed NRDC's Public Education program to complement a new focus on online activism as membership grew to 550,000.

Columbia University, New York, NY

B.A. 2000

Independent Major in Science and Religion

Honors: Summa Cum Laude, Phi Beta Kappa

Research Focus

Managing water wisely in an era of limited supply requires creative assessments of both patterns and drivers of water use. My research program addresses issues of water scarcity, water productivity, and land use effects on water resources. With a focus on biophysical interactions at the land-water interface, my questions are motivated by human needs for both functional landscapes and safe, plentiful water supplies. My research includes field-based work, modeling, and analysis of existing large data sets. This methodological breadth provides insight on a global scale about pressing problems and solution levers while providing important ground truth data and understanding from local interactions.

Awards

- 2015 Center for the Study of Politics and Government, University of Minnesota. **Policy Fellow.** Minneapolis, MN. 2015-2016.
- 2014 Future Earth Young Scientists Networking Conference on Ecosystems and human wellbeing in the green economy. **Future Earth Fellow.** Villa Vigoni, IT. 26-30 May.
- 2012 Planet Under Pressure. **Best Early Career Researcher Poster.** "Water Wise: Are we getting enough crop per drop?" London, UK. 18-22 March.
- 2011 Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) IV **Scholar.** Colorado Springs, CO. 23-29 October.
- 2011 Gordon Research Conference on Catchment Science: **Gordon Research Seminar Rising Star.** "Changing Land Use and Changing Climate: effects on ecosystem services provided by tropical watersheds." Lewiston, ME. 9-15 July.
- 2010 Latsis International Symposium on Ecohydrology: **Outstanding Poster Presentation.** "Water as a Link between Land Cover and Human Wellbeing: A Hydrologic Ecosystem Services Case Study in Hawai'i." Lausanne, Switzerland. 17-20 October.
- 2007 American Geophysical Union: **Outstanding Student Presentation.** Poster: "The Value of Forest and Pasture to Water Supply in Kona, HI." San Francisco, CA. 10-14 December.

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Grants, Fellowships, Scholarships

- 2016 **Belmont Forum/NSF** "ClimateWise: Climate-Smart Watershed Investments in Montane Tropics of South America." (Lead-PI)
- 2016 University of Minnesota Institute on the Environment **MiniGrant**. "Community Water Workshops with Water Bar" (Lead-PI)
- 2015 Legislative-Citizen Commission on Minnesota Resources **2015 Environment and Natural Resources Trust Fund**. "Informed Water Management: Mapping Scarcity, Threats, and Values." (co-PI)
- 2015 Rockefeller Foundation **Freshwater Competition**. "Re-Allocating Water: A Prototype Proposal to the Rockefeller Foundation." (Collaborating Scientist)
- 2015 CGIAR Research Program on Water, Land and Ecosystems **INNOV Innovation Fund Grant**. "Targeting agricultural innovation and ecosystem service management in the Northern Volta." (Collaborating Scientist)
- 2015 University of Minnesota Institute on the Environment **MiniGrant**. "Does smallholder use of improved irrigation save water?" (Lead-PI)
- 2013 University of Minnesota Institute on the Environment **MiniGrant**. "Twin Cities Tropical Environments Network" (Co-PI)
- 2012 National Academies Keck Futures Initiative (NAKFI) **Ecosystem Services Grant**. "Healthy ecosystems and healthy people: Bridging disciplines to understand health impacts of environmental change." (Lead-PI)
- 2012 University of Minnesota Institute on the Environment **MiniGrant**. "Web Interactive Water Quality Valuation Resource" (Lead-PI)
- 2009 Stanford University Mel Lane **Student Program Grant** from the Woods Institute for the Environment for the Bay Area Tropical Forest Network (Lead-PI)
- 2006-08 Stanford University IPER Rudolf **Summer Research Grant** (Lead-PI)
- 2005/06 Stanford University McGee School of Earth Sciences **Research Grant** (Lead-PI)
- 2007-09 William and Jeanne Landreth IPER **Graduate Fellowship**
- 2004-07 David and Lucille Packard Stanford **Graduate Fellowship**
- 2004-07 National Science Foundation **Graduate Research Fellowship**

Publications

Peer reviewed

- Brauman, KA**, B Richter, S Postel, M Malby, M Flörke. 2016. "Water Depletion: An improved metric for incorporating seasonal and dry-year water scarcity into water risk assessments." **Elementa: Science of the Anthropocene** 4:000083. doi: 10.12952/journal.elementa.000083
- Brauman, KA**, N Viart. (*in press*) "Development of a regionally sensitive water-productivity indicator to identify sustainable practices for sugarcane growers." **Integrated Environmental Assessment and Management (IEAM)**
- Weathers KC, PM. Groffman, E Van Dolah, E. Bernhardt, NB Grimm, K McMahon, J Schimel, M Paolisso, R Maranger, S Baer, **K Brauman**, E Hinckley. 2016. "Frontiers in Ecosystem Ecology from a Community Perspective: The Future is Boundless and Bright" **Ecosystems**. DOI: 10.1007/s10021-016-9967-0
- Brauman, KA**. 2015. "Hydrologic ecosystem services: Linking ecohydrologic processes to human well-being in water research and watershed management." **Wiley Interdisciplinary Reviews: Water** 2(4): 345-358. DOI: 10.1002/wat2.1081
- Brauman, KA**, GC Daily, DL Freyberg. 2015. "Impacts of Land-Use Change on Groundwater Supply: An ecosystem services assessment in Kona, Hawai'i." **Journal of Water Resources Planning and Management (ASCE)** 141(12): A4014001 DOI:10.1061/(ASCE)WR.1943-5452.0000495

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- G K MacDonald, **KA Brauman**, S Sun, KM Carlson, ES Cassidy, JS Gerber, PC West. 2015. "Rethinking agricultural trade relationships in an era of globalization." *BioScience* 65(3): 275-289. DOI: 10.1093/biosci/biu225
- Carlson, Kimberly M, LM Curran, A Ponette-González, D Ratnasari, P Ruspita, N Lisnawati, Y Purwanto, **KA Brauman**, PA Raymond. 2015. "Consistent results in stream hydrology across multiple watersheds: A reply to Chew and Goh" *Journal of Geophysical Research: Biogeosciences* 120(4):812-817. DOI: 10.1002/2014JG002834
- Ponette-González, AG*, **KA Brauman***, E Marin-Spiotta, KR Young, K Farley. 2015. "Water services and hydrologic fluxes in tropical regions: Conceptual framework for effective water management" *AMBIO* 44(5) DOI: 10.1007/s13280-014-0578-8
- H Tallis, J Lubchenco, *et al.* 2014. "Working Together: A call for inclusive conservation (Commentary)." *Nature*, 515(7525): 27-28, DOI:10.1038/515027a
- West PC, JS Gerber, ND Mueller, **KA Brauman**, KM Carlson, ES Cassidy, PM Engstrom, M Johnston, GK MacDonald, DK Ray, S Siebert. 2014. "Leverage points for improving food security and the environment." *Science*, 345(6194): 325:328 DOI: 10.1126/science.1246067
- Guswa, AJ, **KA Brauman**, C Brown, P Hamel, BL Keeler, SS Sayre. 2014. "Ecosystem services: Challenges and opportunities for hydrologic modeling to support decision making." *Water Resources Research*, 50(5), 4535-4544, DOI:10.1002/2014WR015497
- Carlson, Kimberly M, LM Curran, A Ponette-González, D Ratnasari, P Ruspita, N Lisnawati, Y Purwanto, **KA Brauman**, PA Raymond. 2014. "Watershed-climate interactions influence stream temperature, sediment yield, and metabolism along a land-use intensity gradient in Indonesian Borneo" *Journal of Geophysical Research: Biogeosciences*, 119(6): 1110-1128, DOI:10.1002/2013JG002516
- Ponette-González, AG, E Marin-Spiotta, **KA Brauman**, KR Young, K Farley. 2014. "Hydrologic Connectivity in the High-Elevation Tropics: Heterogeneous Responses to Land Change." *BioScience* 64(2): 92-104. DOI: 10.1093/biosci/bit013
- Staudt, A, AK Leidner, J Howard, **KA Brauman**, J Dukes, L Hansen, C Paukert, J Sabo, LA Solórzano. 2013. "The added complications of climate change: understanding and managing biodiversity and ecosystems." *Frontiers in Ecology and the Environment* 11(9): 494-501. DOI: 10.1890/120275
- Brauman, KA**, S Seibert, JA Foley. 2013. "Improving crop water productivity increases water sustainability and food security—a global analysis." *Environmental Research Letters* 8(2): 024030. DOI: 10.1088/1748-9326/8/2/024030
- Richter BD, D Abell, E Bacha, **KA Brauman**, S Calos, A Cohn, C Disla, S Friedlander O'Brien, D Hodges, S Kaiser, M Loughran, C Mestre, M Reardon, and E Siegfried. 2013. "Tapped Out: How can cities secure their water future?" *Water Policy Journal* 15(3): 335-363 DOI: 10.2166/wp.2013.105
- Keeler, B, S Polasky, **KA Brauman**, K Johnson, J Finlay, A O'Neill, K Kovacs, B Dalzel. 2012. "Linking water quality and well-being for improved assessment and valuation of ecosystem services." *Proceedings of the National Academy of Sciences*. 109(45): 18619-18624. DOI: 10.1073/pnas.1215991109
- Brauman, KA**, DL Freyberg, GC Daily. 2012. "Land Cover Effects on Groundwater in the Tropics: Ecohydrologic Mechanisms." *Ecohydrology*. 5: 435-444 (published online June 2011). DOI: 10.1002/eco.236

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- Brauman, KA**, DL Freyberg, GC Daily. 2012. "Potential Evapotranspiration from Forest and Pasture in the Tropics: A Case Study in Kona, Hawai'i." *Journal of Hydrology*. 440-441: 52-61. DOI: 10.1016/j.jhydrol.2012.03.014
- Staudt, A, AK Leidner, J Howard, **KA Brauman**, J Dukes, L Hansen, C Paukert, J Sabo, LA Solórzano, K Johnson. 2012 "Chapter 5: Climate Change Effects on Already Stressed Biodiversity, Ecosystems, and Ecosystem Services" in *Climate Change Impacts on Biodiversity, Ecosystems, and Ecosystem Services: Technical Input to the National Climate Assessment*. Eds. S Carter, FS Chapin III, N Grimm, P Kareiva, M Ruckelshaus, M Staudinger, A Staudt, B Stein. USGS: Reston, VA.
- Foley, Jonathan A, N Ramankutty, **KA Brauman**, et al. 2011. "Solutions for a Cultivated Planet" *Nature*. 478(7369): 337-342. DOI: 10.1038/nature10452
- Khagram S, KN Cahill, DP MacMynowski, J Warren, E Richards, K Oleson, J Kitzes, R Katz, R Hwang, R Goldman, J Funk, and **KA Brauman**. 2010. "Thinking about Knowing: Intellectual Foundations for Interdisciplinary Environmental Research." *Environmental Conservation*. 37(4): 388-397. DOI: 10.1017/S0376892910000809
- Brauman, KA**, DL Freyberg, GC Daily. 2010. "Forest structure influences on rainfall partitioning and cloud interception: A comparison of native forest sites in Kona, Hawai'i." *Agricultural and Forest Meteorology*. 150(2): 265-275. DOI: 10.1016/j.agrformet.2009.11.011
- Brauman, KA**, GC Daily, TK Duarte, and HR Mooney. 2007 "The Nature and Value of Ecosystem Services: A focus on hydrology." *Annual Review of Environment and Resources*. 32:67-98. DOI: 10.1146/annurev.energy.32.031306.102758
- Book chapters, reports, reviews, other academic writing**
- Brauman, KA**. (2016) "Global Water Data: We'll Show You the World, Sort Of." *Open Rivers: Rethinking The Mississippi 2*: <http://editions.lib.umn.edu/openrivers/article/global-water-data-well-show-you-the-world-sort-of/>
- Brauman, KA**. 2016. "Freshwater." In *Routledge Handbook on Ecosystem Services*. M Potschin, R Haines-Young, R Fish, RK Turner, eds. Routledge: London and New York, pp 374-382. ISBN 978-1-138-02508-0
- Brauman, KA**. (2015) "Water Availability" in *Oxford Bibliographies in Environmental Science*. Ed. Ellen Wohl. New York: Oxford University Press
- Brauman, KA**, S Fury, H Kulkarni, H Manthritilake, M McCartney, S Verma and Karen G. Villholth. (2015) Groundwater and ecosystem services: a framework for managing smallholder groundwater-dependent agrarian socio-ecologies - applying an ecosystem services and resilience approach. Colombo, Sri Lanka: *International Water Management Institute (IWMI)*. *CGIAR Research Program on Water, Land and Ecosystems (WLE)*. 25p. doi: 10.5337/2015.208
- Brauman, KA**. 2015. "Get on the Ecosystem Services Bandwagon (editorial)." *Integrated Environmental Assessment and Management* 11(3):343:344
- Chaplin-Kramer R, E Bennett, BE Robinson, GC Daily, **KA Brauman**, PC West. 2015. "Determining the value of ecosystem services in agriculture" in *Enhancing the resilience of agriculture: perspectives from ecology and economics*. R Hails, S Ramsden, S Gardner, eds. Ecological Reviews (accepted)
- Brauman, KA**, N Viart. The development of a regionally-sensitive water-usage indicator to identify sustainable practices for sugarcane growers. (conference presentation at Sugar Industry Technologist Presentations and Technical Papers – Toronto – 2014)

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Brauman, KA and GC Daily. 2014 (update). "Ecosystem Services." In **Reference Module in Earth Systems and Environmental Sciences**. SA Elias ed. Oxford, UK: Elsevier. doi.org/10.1016/B978-0-12-409548-9.09453-7

Brauman, KA, S van der Meulen and J Brils. 2014. "Ecosystem Services and River Basin Management." In **Towards Risk-Based Management of River Basins**. W Brack, J Brils, D Muller, P Negrel, J Vermaat, eds. Handbook of Environmental Chemistry, Springer. Heidelberg, Germany.

Brauman, KA 2008. "Book Review: The Promise and Perils of Ecosystem Service Case Studies." **Ecology**. 89(9):2667-2668

Brauman, KA. and GC Daily. 2008. "Human Ecology: Ecosystem Services." In **Encyclopedia of Ecology**, ed. S.E. Jorgensen and Brian Fath. Oxford, UK: Elsevier. ISBN: 0-444-52033-3

Publications in Preparation

Carlson, KM, **KA Brauman**, JS Gerber, P Havlik, M Herrero, JA Johnson, G MacDonald, ND Mueller, CS O'Connell, S Saatchi, PC West. "Greenhouse gas emissions intensity of global cropland agriculture." (*in review*)

Brett R Bayles, **KA Brauman**, J Adkins, B Allan, C Golden, A Ellis, T Goldberg, DS Grigsby, S Myers, S Osofsky, T Ricketts, J Ristaino. "Ecosystem services connect environmental change to human health outcomes." (*in revision*)

Brett R Bayles, **KA Brauman**, BF Allan. "The Ecological and Epidemiological Cascade of Anthropogenic Landscape Change for Human Incidence of Ehrlichiosis." (*in revision*)

Brett R Bayles and **KA Brauman**. "Ecosystem Services and Human Health Outcomes: A Systematic Review" (*in preparation*)

Teaching, Advising, and Curriculum Development

- 2015-16 **Developer and Instructor, GCC 3009: Rivers and Cities**, U. Minnesota
Grand Challenge Course – Co-Instructors: Patrick Nunnally, Jennifer Gunn, Jay Bell
Co-designed seminar and led hydrology portions of hydrology and history of river cities.
- 2012 **Associate Teacher, HSEM 3039: Sustainability and Planning on the Great River**, U. Minnesota
Honors Seminar – Instructor: Patrick Nunnally
Designed and led science portions of science, policy, and engagement on the Mississippi River course.
- 2007 **Teaching Assistant, CEE 166A/266A: Wetlands and Watersheds**, Stanford University, CA
Dept of Civil & Environmental Engineering – Instructor: David Freyberg
Taught weekly discussion sections focused on understanding and applying concepts from this senior-level undergraduate and masters-level course in basic hydrology. Developed and graded exam questions.
- 2005-06 **Course Development & Teaching Assistant, GeoPhys 104: The Water Course**, Stanford University, CA
Dept of Geophysics – Instructor: Rosemary Knight
Gave three lectures, designed and ran computer lab sections, held office hours, and designed and graded reports for an interdisciplinary, watershed-focused undergraduate class targeted at non-science majors.
- 2006 **Student Organizer, IPER/CEE 333: California Water Policy Colloquium**, Stanford University, CA
Co-organized an entirely student-run weekly invited speaker series with an enrollment of 35 students and an average attendance of 50. Designed curriculum, identified outside speakers, handled logistics.

Guest Lectures

- 2016 **Environmental Science 320: Watershed Biogeochemistry**, Colorado College. "Water and Agriculture"
- 2016 **Sustainable Systems Management 3301: Global Water Sustainability**, UMN. "Water Scarcity"
- 2015 **Political Science 3317: Food Politics**, UMN. "Agriculture, Water, and the Environment"
- 2014/15 **Ecology 5146: Science and Policy of Global Environmental Change**, UMN. "Water Sustainability"
- 2014/15 **Integrated Leadership**, Boreas Leadership Program, UMN IonE. Grand Challenges Presenter
- 2013/14 **Building Better Presentations**, Boreas Leadership Program, UMN IonE. Presenter

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- 2014 **Environmental Studies 381B: Environmental Modeling**, St Olaf College. "Modeling Ecosystem Services"
- 2012 **Veterinary Population Medicine 2850: Health and Biodiversity**, UMN. "Ecosystem Services"
- 2012 **Environmental Studies 137: Intro to Environmental Studies**, St Olaf College. "Water use, water abuse"
- 2012 **Ecology and Evolutionary Biology 3001: Ecology and Society**, UMN. "Ecosystem Services in Action"
- 2006 **Environmental Science 15: Restoration Ecology**. Santa Clara University. "Dams and Dam Removal"

Advising:

- 2016 Examiner, PhD Thesis, Stellenbosch University, South Africa
- 2015-16 Advisor to MyRain research assistants Rachel Brown (undergraduate), Adam Iverson (MS)
- 2015 Supervisor to Brazilian Scientific Mobility Program undergraduate Luiza Nascimento Dias Torres
- 2015 Supervisor to visiting MS student Marie-Theres Wandl (University of Vienna)
- 2014 Supervisor to visiting postdoctoral fellow Tuck Fatt Siew, PhD (University of Frankfurt)
- 2012-14 Postdoctoral supervisor to Brett R. Bayles, PhD, MHP

Development:

- 2012-13 **Participant**, Course Development Workshop, Center for Teaching and Learning, U. Minnesota
- 2005-10 **Student Representative to the University iEarth Committee**, Stanford University, CA
- 2006-07 **Participant, Interdisciplinary Working Group for Program and Curriculum**, Stanford University, CA
- 2006-08 **Student advisor for IPER First-Year doctoral students**, Stanford University, CA

Academic Service

- 2015-17 **Senior Editor**, Integrated Environmental Assessment and Management (SETAC)
- 2014 **Convener and Chair**, American Geophysical Union Session: Ecosystem Services.
- 2013 **Convener and Moderator**, Ecological Society of America Symposium: Agroecology Across Scales.
- 2013 **Reviewer**, DISCCRS VIII Symposium
- 2011-13 **Chair**, Gordon Research Seminar on Catchment Science, 2013.
- 2012 **Convener and Chair**, American Geophysical Union Session: Hydrologic Ecosystem Services.
- 2012 **Convener and Chair**, American Geophysical Union Session: Environmental Hotspots.
- 2011-12 **Working Group Member**, 2012 United States National Climate Assessment Ecosystems and Ecosystem Services Working Group.
- 2011-12 **Convener and Chair**, American Geophysical Union Session: Ecosystem Services.
- 2010 **Postdoctoral Representative**, Selection Committee, UMN Global Environmental Leadership Postdoctoral Fellows.
- 2009 **Student Leaders Forum** with Stanford President Hennessey at *Leading Matters* (SF).
- 2007-08 **Student Representative** to the Stanford Ecohydrology Faculty Hiring Committee.
- 2006-07 **Student Representative** to the Executive Committee for IPER.
- 2007-10 **Student Organizer, Ecohydrology Working Group**, Stanford University, CA
- 2006 **Student Representative** to the IPER Associate Director hiring committee.

Grant Review:

- 2016 Swiss National Science Foundation (SNSF)
- 2015 German-Israeli Foundation for Scientific Research and Development (GIF)
- 2014 Centres of Research Excellence (CoREs) Fund, Royal Society of New Zealand
- 2013 NASA Interdisciplinary Research in Earth Science (IDS) Climate Extremes: Drought and Flooding
- 2012 Inter-American Institute for Global Change Research (IAI), Third Collaborative Research Network (CRN3), Integrated Research on Ecosystem Services
- 2012 COST (*European Co-operation in the Field of Science and Technology*), EURO-AGRIWAT Action ES1106: Assessment of European Agriculture Water use and trade under climate change
- 2012 NSF Science, Engineering, and Education for Sustainability (NSF SEES) Fellows program

Journal Peer Review:

Agricultural and Forest Meteorology, Applied Geography, Earth System Dynamics, Ecological Economics, Ecology, Ecology and Society, Ecosystem Services, Ecosystems, Environmental Management, Environmental Monitoring and Assessment, Environmental Research Letters, Frontiers in Ecology and the Environment, Global Environmental Change, Integrated

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Environmental Assessment and Management, Land, Landscape and Urban Planning, Mitigation and Adaptation of Strategies for Global Change, Nature Communications, Proceedings of the National Academy of Sciences, Science of the Total Environment

Employment History

- 2014 - **Lead Scientist, Global Water Assessment, Institute on the Environment**
University of Minnesota, Twin Cities
- 2010-14 **Global Landscapes Initiative Postdoctoral Fellow, Institute on the Environment**
University of Minnesota, Twin Cities
- 2004-10 **PhD Student, Emmett Interdisciplinary Program in Environment and Resources**
Stanford University, Stanford, CA
- 2001-04 **Membership and Public Education Senior Associate**
Natural Resources Defense Council, New York, NY
Developed NRDC's Public Education program to complement a new focus on online activism as membership grew to 550,000. Fielded questions about NRDC and BioGems campaigns. Supervised interns and volunteers.
- 2000 **Genetics Laboratory Assistant, Biology Department**
Columbia University, New York, NY – Advisor: Martin Chalfie
- 1999-00 **Research Assistant, Center for the Study of Science and Religion**
Columbia University, New York, NY – Advisor: Robert Pollack

Outreach

- 2016 **Judge, World of 7 Billion video contest.** Population Connection, Washington, DC
- 2014 **City Arts Collaboratory STEM Fellow.** Public Art St Paul.
- 2013-14 **Founding Member, Twin Cities Tropical Environments Network,** Minneapolis, MN
- 2009-10 **Board of Directors, Bay Area Tropical Forest Network,** Stanford, CA

Press Appearances

- 2016 **Minnesota Daily.** “Researchers release new water conservation tool” 2 Feb
- 2015 **The Bat of Minerva with Peter Shea**
- 2015 **Almanac: At the Capitol on Twin Cities Public Television (TPT).** St Paul, MN 6 May. Segment on water quality in Minnesota. <http://z.umn.edu/tptmnwq>
- 2013 **The Western Producer.** “Experts focus on water use.” 4 October
- 2013 **Environmental Research Web.** “Boosting ‘crop per drop’ could cut water usage.” 22 Aug
- 2013 **Minnesota Daily.** “U research measures ‘crop per drop’” 12 June
- 2013 **AgWeb.** “Which Crops are the thirstiest?” 3 June
- 2013 **Yale Environment 360.** “Getting more ‘crop per drop’ in driest agricultural regions.” 31 May
- 2011 **Momentum Magazine (now Ensia).** “Making the Most of Water”

Public Lectures:

- 2016 **MSU Fate of the Earth Symposium.** East Lansing, MI. 6 April. “Water Matters: Scarcity, Productivity, and Management in a Changing World”
- 2016 **Minnesota Pollution Control Agency.** St Paul, MN 11 Feb. “Hydrologic Ecosystem Services: Not just a fancy new name for water management”
- 2015 **Mindstretch.** St Paul, MN 28 October. “Food, Water, and the Future: Feeding a warming planet”
- 2015 **Frontiers in the Environment: Big Questions.** University of Minnesota, MN. 4 March. “Is drawing down our aquifers really so bad?” Convener and panelist.
- 2015 **The New Century Club.** St Paul, MN 3 February. “Five Steps to Feed the World: Where Will we Find Enough Food for 9 Billion?”

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- 2014 **The World Wildlife Foundation's Fuller Symposium: Whole Planet, Full Plate.** Washington, DC 12 November. Rethinking Food Panelist.
- 2014 **The Nature Conservancy's Global Water Summit.** Chicago, IL 18-20 November. "Water Supply, Demand, and Risk."
- 2014 **Minnesota Zoo Our World Speaker Series.** Apple Valley, MN 15 October. Agriculture and Water Panelist.
- 2014 **Great Decisions Speakers Bureau,** Minnesota International Center. Food and Climate.
- 2013 **The 6th Annual Great Decisions Conference on Global Food Security.** Minneapolis, MN 11 Oct. Minnesota International Center. Speaker on Sustainable Agriculture and Water Security.
- 2013 **Live Q&A: Water in agriculture.** The Guardian UK Global Development Professionals Network. Panelist. gu.com/p/3tnym/tw
- 2013 Panel discussant for **The Freshwater Society.** Minneapolis, MN 12 Feb. The Moos Family lecture series featuring Sandra Postel.
- 2012 **Sip of Science.** National Center for Earth Surface Dynamics, Minneapolis, MN 14 Nov. "Hawai'i to Hurricane Sandy: Can Ecosystem Management Affect Water Resources?"
- 2012 **Frontiers in the Environment.** University of Minnesota, MN. 22 Feb. "Are we getting enough crop per Drop? Global Trends in Agricultural Water Use"
- 2008 **Kona Water Roundtable.** Kailua-Kona, HI, 3 Nov. "Land Management and Groundwater Resources in Kona, HI."
- 2008 **First Nations Futures Institute.** Stanford, CA. 16 October. "Assessing and Valuing Land Cover Change in Kona, HI."
- 2008 **Breath! California Biannual Statewide Conference.** Tiburon, CA. 3 May. "Global Warming and Water Resources in California."

Presentations and Publications:

- Brauman, Kate A. 2015. "Investing in Watersheds: Back to Basics." *IonE News*. Published online: <http://environment.umn.edu/water/investing-in-watersheds-back-to-basics/>
- "Eating Water." Narrator and collaborative writer for a **Science Museum of Minnesota** Science on a Sphere movie. Available at: <http://sos.noaa.gov/Datasets/dataset.php?id=481>
- Brauman, Kate A. "DIY Video Abstracts: Lessons from an Ultimately Successful Experience" (poster) 2013. **American Geophysical Union.** San Francisco, CA
- Cynthia Barnett. 2013 "Groundwater Wake-Up." *Ensis*. <http://ensia.com/features/groundwater-wake-up/>
KAB developed groundwater map design
- Brauman, Kate A, GC Daily, DL Freyberg. 2009. "Synergies and tradeoffs: Managing land to improve water supply in Kona, Hawai'i." Video for *Water-Ecosystem Services, Drought, and Environmental Justice: the First Millennium Conference of the Ecological Society of America*.
Published online: <http://www.youtube.com/watch?v=EMN5iSoK-hI>
- Brauman, Kate A. 2006. "Napa River Flood Project Put to the Test." **The Katoomba Group's Ecosystem Marketplace.** 3 February. www.ecosystemmarketplace.com
- Brauman, Kate. "Poster: Light Switches." 1998. *This Old House Magazine*. 23 (November)
- Brauman, Kate. "On the Ball." 1998. *This Old House Magazine*. 16 (February)

Workshops/Education:

- 2015 Co-Creator and Presenter, **Water, Health, and the World's Cities**, K-College educators UMN Institute for Global Studies, MN
- 2014 Presenter, **Food! In a Global Classroom**, K-College educators (invited), UMN Institute for Global Studies, MN
- 2009 Presenter, **Geoscape Bay Area** for 6th Grade Earth Science Teachers (invited), Stanford University, CA
- 2008 Presenter/Workshop Leader, **Sally Ride Science Festival** (invited), NASA Ames Research Center, CA

Invited Talks

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- 2016 **UMN Water Supply Convergence Colloquium.** Minneapolis, MN. 19 Feb. "Getting more 'bang' for our water 'buck': Water and what it can do for us"

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- 2015 **ATREE Ashoka Trust for Research in Ecology and the Environment.** Bangalore, India. 4 Dec. “Hydrologic ecosystem services in Hawai’i: quantifying locally and extrapolating globally”
- 2015 **UMN Water Resources Center Seminar Series.** Minneapolis, MN 16 October. “IonE’s Global Water Initiative: Linking Research to Action”
- 2015 **UMN St. Anthony Falls Laboratory Seminar.** Minneapolis, MN 29 April. “Water at the UMN Institute on the Environment: Research to Action for Sustainability”
- 2015 **UMN Sawyer Symposium: Imagining the Mississippi in an Era of Climate Change.** Minneapolis, MN 10 April. River as Future Panelist.
- 2015 **USDA-ERS Conference on Agricultural Productivity and the Environment.** Washington, DC. 11-12 March. “Crop Water Productivity and Water Gaps – quantifying the benefits of increasing crop per drop in global agriculture”
- 2014 **American Geophysical Union.** San Francisco, CA. 16 December. “Water Depletion Threatens Agriculture”
- 2014 **CGIAR-IWMI Water, Lands and Ecosystems workshop on Managing Smallholder Groundwater-dependent Agrarian Socio-Ecologies using an Ecosystem Services and Resilience Based Approach.** Colombo, Sri Lanka. 4-7 November. “Groundwater and Ecosystem Services: Vulnerability and Resilience”
- 2014 **Emerging Infectious Plant Diseases of Africa in the Context of Ecosystem Services.** Bellagio Center, Italy. 10 April. “Ecosystem Services: A framework for linking biophysical processes to human needs”
- 2014 **Crop Sciences Bonn Departmental Seminar.** University of Bonn. 26 March. “Water Depletion and Global Agriculture: Taking stock of global water resources”
- 2014 **Center for Environmental Systems Research Departmental Seminar.** University of Kassel. 24 March. “Water Depletion and Agriculture: Taking stock of global water resources”
- 2014 **URPP Global Change and Biodiversity Seminar Series.** University of Zurich. 17 March. “Hydrologic Ecosystem Services: Managing Landscapes for Water, Nature, and People”
- 2014 **Meeting Global Food Security Challenges: Efficient Nutrients Provision, Technology & Knowledge Transfer.** Grand Water Research Institute, Technion-IIT, Haifa. 25 February. “Closing yield gaps: global benchmarks for improving water and nutrient management”
- 2013 **Agrimonde-Terra.** CIRAD, Paris. 11 November “Water cycle and availability as a driver of cropping system evolution”
- 2013 **Agricultural Society of America, Crop Science Society of America, Soil Science Society of America.** Annual Meeting, Tampa. 5 November. “Hydrologic ecosystem services in agricultural systems”
- 2013 **School for the Environment Seminar Series.** University of Massachusetts, Boston. 23 October “Getting more food bang for our water buck: putting water efficiency into water sustainability”
- 2012 **Geological Sciences Seminar.** University of Minnesota, Duluth, MN. 4 May “Water sustainability and food security: win-win solutions for a thirsty planet”
- 2012 **Natural Resource Ecology and Management Seminar.** Iowa State University, IA. 6 April. “Assessing Watershed Ecosystem Services: Land Use Change Effects on Groundwater Recharge and Other Services in Hawai’i”
- 2011 **American Geophysical Union.** San Francisco, CA. 7 December. “Land Use Change Affects Groundwater Recharge: Hydrologic Services in Tropical Watersheds”
- 2011 **Water Resources Science Seminar.** University of Minnesota, St Paul, MN. 25 March. “Land Management Affects Water Supply: Assessing the Costs and Benefits of Delivering Hydrologic Ecosystem Services in Kona, Hawai’i”
- 2010 **Lund University Center for Sustainability Studies.** Lund, Sweden. 21 October. “Water Links Land Cover to Human Wellbeing: Investigating Hydrologic Ecosystem Services in Hawai’i”
- 2010 **Climate, People, and the Environment Program,** University of Wisconsin, Madison. 3 December. “Land Management for Water Supply: Hydrologic Ecosystem Services in Kona, HI”
- 2010 **American Association of Geographers.** Washington, DC. 14-18 April. “Montane Land Cover Effects on Water Supply in Coastal Hawai’i”
- 2009 **Final Conference RISKBASE: towards risk-based river basin management.** Belgium. 16-18 November. “Ecosystem Services as a core element in risk-based river management”

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- 2009 **RISKBASE Workshop: WP5 “Risk management, preventive approaches & policies”: Ecosystem Services and Adaptive Management.** Venice, Italy. 25-26 June. “Ecosystem Services for Watershed Management – A framework for connecting hydrologic science to watershed policy”
- 2007 **Stanford Hydrogeology Seminar Series.** Stanford, CA. 31 October. “The Nature and Value of Ecosystem Services: Managing Land Cover to Increase Water Supply in Hawai’i”

Selected Conference Presentations

- 2015 **American Geophysical Union.** San Francisco, CA. 17 December. “Identifying high-value regions for hydrologic ecosystem services around the globe” (poster)
- 2014 **American Geophysical Union.** San Francisco, CA. 15 December. “Manage hydrologic fluxes instead of land cover in watershed service projects” (poster)
- 2014 **Sugar Industry Technologists 2014 Meeting.** Toronto. 20 May. “The Development of a Regionally-Sensitive Water Usage Indicator to Identify Sustainable Practices for Sugarcane Growers” (talk – presented by N Viart, conference paper)
- 2014 **Global Land Project Open Science Meeting.** Berlin. 19 March. “Water Depletion of Watersheds Worldwide: Local drivers and global connections” (talk)
- 2013 **American Geophysical Union.** San Francisco, CA. 12 December. “Food vs. water: the magnitude and range of global tradeoffs in agricultural production and impact” (talk)
- 2012 **American Geophysical Union.** San Francisco, CA. 3 December. “Where the water is: Mapping global drivers of water scarcity” (talk)
- 2012 **Planet Under Pressure.** London, UK. 18-22 March. “Solutions for a cultivated planet” (talk)
- 2012 **Planet Under Pressure.** London, UK. 18-22 March. “Water Wise: Are we getting enough crop per drop” (poster, best early career researcher poster award)
- 2011 **American Geophysical Union.** San Francisco, CA. 5 December. “Worldwide trends in agricultural water use” (talk)
- 2011 **National Academies Keck Futures Initiative: Ecosystem Services.** Irvine, CA. 11-13 November. “Hydrologic Services in Tropical Watersheds” (poster)
- 2011 **Ecological Society of America.** Austin, TX. 8-12 August. “Assessing local benefits and impacts from global patterns in agricultural water use” (talk)
- 2011 **Gordon Research Seminar and Conference.** Lewiston, ME. 9-15 July. “Changing Land Use and Changing Climate: Effects on ecosystem services provided by tropical watersheds” (talk, rising star award)
- 2011 **American Association for the Advancement of Science.** Washington, DC. 18-21 February. “Global Distribution of Agricultural Water Use” (poster)
- 2010 **American Geophysical Union.** San Francisco. 13-17 December. “Managing Land to Enhance Water Resources: A Hydrologic Ecosystem Services Case Study in Kona, Hawai’i” (poster)
- 2010 **Latsis International Symposium on Ecohydrology.** Lasusanne, Switzerland. 17-20 October. “Water as a Link between Land Cover and Human Wellbeing: A Hydrologic Ecosystem Services Case Study in Hawai’i” (outstanding poster award)
- 2009 **2nd International Conference on Forests and Water in a Changing Environment.** Raleigh, NC. 14-16 September. “The importance of forest structure to rainfall partitioning and cloud interception: A comparison of native forest sites in Kona, Hawai’i”
- 2009 **Ecological Society of America.** Albuquerque, NM. 2-7 August. “The importance of forest structure to rainfall partitioning and cloud interception in native forest in Kona, Hawai’i”
- 2009 **Hawai’i Conservation Conference.** Honolulu, HI. 28-30 July. “The Effects of Native Forest and Working Pasture on Rainfall Partitioning and Groundwater Recharge in Kona, Hawai’i”
- 2009 **Bay Area Conservation Biology Symposium.** Stanford, CA. 31 January. “Comparative Ecohydrologic Effects of Forest and Pasture on Water Balances in Kona, HI”
- 2008 **American Geophysical Union.** San Francisco, CA. 15-19 December. “Comparative Ecohydrologic Effects of Forest and Pasture on Water Balances in Kona, HI” (poster)
- 2008 **Young Environmental Scholars Workshop.** Stanford, CA. 4-5 March. Water Panel. (moderator and presenter)
- 2007 **American Geophysical Union.** San Francisco, CA. 10-14 December. “The Value of Forest and Pasture to Water Supply in Kona, HI.” (poster, Outstanding Student Presentation award)

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2007 *Stanford School of Earth Sciences Research Review*. Stanford, CA. 11 April. "The Nature and Value of Ecosystem Services: How Land Cover Affects Water Resources in Hawai'i"

Memberships and Professional Affiliations

2005 – present	American Geophysical Union Member
2008 – present	Ecological Society of America Member
2015– present	Society of Environmental Toxicology and Chemistry (SETAC)
2009 – 2010	American Association of Geographers Member