

A.R. SIDERS

University of Delaware
111 Academy Street, Newark DE 19716
siders@udel.edu

EDUCATION

Degrees

- 2018 **Ph.D.**, Stanford University, Emmett Interdisciplinary Program in Environment and Resources (E-IPER)
- 2010 **J.D.**, Harvard Law School, *magna cum laude*
License: California State Bar
- 2007 **A.B.**, Harvard College, Human Evolutionary Biology, *summa cum laude*

Certificates

- 2012 Georgetown University, Legislative Affairs
- 2011 Georgetown University, Nonprofit and Public Executive Management

PROFESSIONAL APPOINTMENTS

- 2019 – pres. **Assistant Professor**, University of Delaware, Biden School of Public Policy and Administration, Geography and Spatial Sciences, Core Faculty Disaster Research Center
- 2018 – 19 **Environmental Fellow**, Harvard University Center for the Environment
- 2012 – 13 **Associate Director** & Postdoctoral Research Fellow, Columbia Law School, Center for Climate Change Law
- 2010 – 12 **Presidential Management Fellow**, U.S. Navy, Office of the Chief of Naval Operations

PUBLICATIONS

Journal Articles

- 2020 P. Marchman, [A.R. Siders](#), K. Leilani Main, V. Herrmann, D. Butler, "Planning relocation in response to climate change: Multi-faceted adaptations," *Planning Theory & Practice*.
- 2019 [A.R. Siders](#) & J. Keenan, "Variables shaping coastal adaptation decisions to armor, nourish, and retreat in North Carolina," *Ocean and Coastal Management*.
- 2019 [A.R. Siders](#), "Managed retreat in the United States," *One Earth*.
- 2019 [A.R. Siders](#), C. Hulet, "Climigration and the private sector," *Community Development Investment Review* (Federal Reserve Bank of San Francisco).
- 2019 K. Mach, C. Kraan, M. Hino, [A.R. Siders](#), E. Johnston, C. Field, "Managed retreat through voluntary buyouts of flood-prone properties," *Science Advances*.
- 2019 [A.R. Siders](#), M. Hino, K. Mach, "A case for strategic and managed retreat," *Science*.
- 2019 [A.R. Siders](#), "Adaptive capacity to climate change: A systematic review and synthesis of methods, concepts, and findings," *WIREs Climate Change*.

- 2018 A.R. Siders, “Social justice implications in U.S. managed retreat buyout programs,” *Climatic Change*.
- 2017 A.R. Siders, “A role for urban climate adaptation strategies: Lessons from London, UK,” *Regional Environmental Change*.
- 2016 E. Grubert & A.R. Siders, “Benefits and applications of interdisciplinary digital tools for environmental reviews and analysis,” *Environmental Research Letters*.
- 2016 A.R. Siders, R. Stanley, & K.M. Lewis, “A proposal for dynamic ocean management in the Bering Strait region,” *Marine Policy*.

Articles in Review

- A.R. Siders, A.L. Pierce, “Deciding how to make climate change adaptation decisions,” *Current Opinion in Environmental Sustainability*.
- L. Berrang-Ford, A.R. Siders, A. Lesnikowski, A.P. Fischer, Haddaway ... Abu, “Mapping evidence of human adaptation to climate change,” *Nature Climate Change*.
- M. Araos, R. Shukla, I. Ajibade, ... A.R. Siders ... L. Turek-Hankins, “Equity in adaptation: A systematic global review,” *Nature Sustainability*.
- C. Kraan, J. Niemann, M. Hino, A.R. Siders, K. Mach, “Evaluating and promoting equity in retreat through voluntary property buyouts,” *Journal of Environmental Sciences & Studies* (special issue on Managed Retreat).

Book Chapters

- A.R. Siders, M. Rockman, “Navigating the Complexity and Creativity of Cultural Heritage in Climate Adaptation,” in *Toward Sustainability + Equity* (E. Avrami, ed., Columbia Books on Architecture and the City) (forthcoming).
- 2016 A.R. Siders, “Resilient Incoherence – Common language for climate change adaptation, disaster risk reduction, and sustainable development,” in *The Role of International Environmental Law in Disaster Risk Reduction* (J. Peel and D. Fisher, eds., Brill).
- 2012 M. Gerrard & A.R. Siders, “Mexico’s General Climate Change Law,” in *What are the Next Steps? Perspectives on Mexico’s General Law on Climate Change* (Law Network).

Selected Policy Reports

- 2015 F. Bendimerad, J. Declan, M. Padilla, A. Dalena, A.R. Siders, R. Crozier, V. Seva, R. Tanhueco, *Naga City Case Studies: Risk Sensitive Land-Use Planning and Incentives for Disaster Risk Reduction* (Asian Development Bank, EMI; Philippines).
- 2013 A.R. Siders, *Managed Coastal Retreat: A Legal Handbook on Shifting Development Away from Vulnerable Areas* (Center for Climate Change Law, Columbia Law School).
- 2013 E. Pless, A.R. Siders, L. Steinbaum, A. Stokenberga, *Livelihood, Security, and Access to Services among Urban Refugees in Delhi, India* (Joint IDP Profiling Services,).
- 2011 E. Heider, K. McLean, A.R. Siders, K. Mosteller, *Africa Partnership Station 2011 Operational Assessment* (U.S. Navy Internal Report).
- 2010 B. Docherty, S. Knox, L. Pappone, A.R. Siders, *Bearing the Burden: The Effects of Mining on First Nations in British Columbia* (Harvard International Human Rights Clinic).

Coding Tools

- 2020 [A.R. Siders](#), Coder reliability and intercoder reconciliation for qualitative meta-analyses and syntheses, Global Adaptation Mapping Initiative, GitHub repository (R Code).
- 2018 [A.R. Siders](#), R script for creating a cross-citation network, GitHub repository (R Code).

Other Academic Publications

- 2020 [A.R. Siders](#), C. Brooks, A. Cravens, R. Nelson, D. Reineman, N. Ulibarri, “How to beat isolation? Academic feedback groups promote growth as scholars and humans,” *Nature Careers*.
- 2017 [A.R. Siders](#), “Past US floods give lessons in retreat,” *Nature Correspondence*.
- 2013 [A.R. Siders](#), “Anatomy of a buyout: New York post-Sandy,” *Proceedings of the 16th Conference on Litigating Takings Challenges to Environmental Regulations*.

Selected Public Writings

- 2018 [A.R. Siders](#), “Government-funded buyouts after disasters are slow and inequitable – here’s how that could change,” *The Conversation*.
- 2017 [A.R. Siders](#), “Art and science in the Watersnood Museum: Remembering the Netherlands’ deadliest flood,” *Europe Up Close*.

SELECTED PRESENTATIONS

Invited Talks

- 2020 University of Connecticut, SeaGrant, Managed Retreat Workshop [Keynote], Nov 13.
- 2020 Perry World House, Global Shifts Colloquium: Seeking Refuge in the Climate Emergency, University of Pennsylvania, Sep 14-16.
- 2020 Observer Research Foundation, *When, Where, and How Managed Retreat*, June 29 (Online keynote for audience in Kolkata, India).
- 2020 Climate Central, *Managed Retreat in the United States*, June 19.
- 2020 Disaster Academy, The Nature Conservancy, *Managed Retreat and US Buyouts*, June 4.
- 2020 American Association for the Advancement of Science (AAAS) Annual Meeting, *Visions for Ocean Solutions*, February 15 [Panel].
- 2020 Columbia University, Climate Heritage – Toward Sustainability and Equity: Envisioning Preservation Policy Reform, February.
- 2020 Georgia Institute of Technology, Civil and Environmental Engineering Cross-Cutting Resilience Research Seminar, Jan.
- 2019 Middlebury Institute of International Studies, *Managed Retreat in California*, Nov.
- 2019 Natural Resources Defense Council, Building Better Buyouts Workshop, October.
- 2019 Ocean Visions Climate Summit, Georgia Institute of Technology, *Adaptive socio-ecological systems in coastal climate adaptation*, April 1-4 [Keynote].
- 2018 Breakthrough Institute Dialogue, *Sea Level Rise: How worried should we be?* June 21.

- 2017 University of Rhode Island, Coastal Institute and Marine Policy, *Adaptive capacity and social justice in coastal resilience*, November 27.
- 2017 Notre Dame University, Adapting to Climate Change Workshop, *Who stays and who goes? U.S. managed retreat decision criteria*, April 30.
- 2015 University of the Philippines, School of Urban and Regional Planning, *Climate Change Adaptation in Urban Planning*, September 6 [Keynote].
- 2015 Harvard Project for Asian and International Relations, *Energy and Sustainability*, De La Salle University, Manila, Philippines, August 22 [Panel].

Conference Activity

- 2020 American Geophysical Union, Bridging Systems Modeling Advances Across Socioecological Domains [Panel], Dec 7.
- 2020 Natural Hazards Conference, Out of Harms' Way? Home Buyouts and Coastal Retreat [Moderator] July 13.
- 2019 Columbia University Earth Institute, *At What Point Managed Retreat?* June 19-21.
- 2019 Kiel University, Germany, *Narratives and Discourses in Environmental Justice*, June 6-9.
- 2019 American Association of Geographers Annual Meeting, Washington DC, April 6.
- 2019 National Adaptation Forum, Madison, WI, April 23-25.
- 2018 Association for Environmental Studies and Sciences Conference, Washington, DC, June 20-23 [Presentation; Session chair].
- 2017 Digital Humanities Conference, Montreal, Canada, August 11-14 [Poster; award-winner].
- 2016 American Association of Geographers Annual Meeting, San Francisco, CA, March 8.
- 2015 American Society of International Law and Red Cross Workshop on Disaster and Environmental Law, *Principles for Coherence in Development Agenda*, May 21-23.

Public Talks

- 2020 Ocean Currents Lecture Series, *Living with the shore: Visions of adaptation for coastal communities*, July 9.
- 2020 Resilient and Sustainable Communities League (RASCL), *Equity in Adaptation*, Jan.
- 2019 Newburyport Storm Surge, *At What Point Retreat?* November 6.
- 2019 New Yorker Festival, *Climate Change and Coastal Resilience*, October 11 [Panel].
- 2019 New England Environmental Business Council, Adaptation Forum, *The R Word: Retreat, Relocation, and Climate Resilience*, March 1.

RELEVANT POLICY EXPERIENCE

- 2015 – 19 **Climate Adaptation Specialist**, Earthquakes and Megacities Initiative
Expert consultant on climate risks and adaptation for urban resilience master plans.
- 2012 – 13 **Associate Director** & Postdoctoral Research Fellow, Center for Climate Change Law, Columbia Law School
Researched and advocated for legal strategies to promote coastal resilience. Drafted legislation. Led advocacy efforts in utility rate case to include climate adaptation in utility storm-hardening measures. Supported developing states in UNFCCC negotiations.
- 2010 – 12 **Presidential Management Fellow**, U.S. Navy
Top secret clearance (2010). Select accomplishments include:
- NATO Shipping Centre, *NATO Maritime Command*, Northwood, UK
Led multinational effort to promote protective counter-piracy measures in regional shipping communities in Middle East and East Africa.
 - Africa Partnership Station, *Naval Forces Africa*, Naples, Italy
Created strategic planning framework and collaborated with U.S. analysts and partners to establish capacity building plans with seven East African navies.
 - Warfare Integration, *Office of the Chief of Naval Operations*, Washington DC
Managed \$900 million in energy and climate programs. Conducted Three-Star Admiral level coordination on Task Force Energy and Task Force Climate Change Executive Steering Committees.

GRANTS, FELLOWSHIPS, AND AWARDS

Grants and research funding

- 2020 NASA EPSCoR, Building a Competitive and Sustainable Delaware Remote Sensing Big Data Center for Cutting-Edge Coastal and Environmental Change Research and Workforce Development (Senior Personnel) (\$750,000)
- 2020 The Nature Conservancy, Legal challenges for coastal adaptation (PI) (\$107,000)
- 2016, 2017 Graduate Research Grant, Environment and Resources, Stanford (\$8,000)
- 2015 Ann and Reid Buckley Collaboration Research Grant (Climate Change Policy) (\$26,000)
- 2014, 2015 McGee Graduate Research Grant, Stanford Earth Sciences (\$6,000)
- 2014, 2015 E-IPER Graduate Student Research Grant, Stanford University (\$5,000)
- 2010 Millbank Fund grant to organize national security law conference (\$10,000)

Fellowships

- 2016 – 18 Morgridge Family Stanford Interdisciplinary Graduate Fellowship, Stanford
- 2015 – 16 International Fellow, Earthquakes and Megacities Initiative, Philippines
- 2013 – 16 David and Lucille Packard Foundation Stanford Graduate Fellowship in Science & Engineering, Stanford

Prizes and Awards

- 2018 Association of Digital Humanities Organizations Bursary Award (Early Career Award)
- 2015 Florida Earth Foundation Young Scholar
- 2010 Dean's Award for Community Leadership, Harvard Law School
- 2007 Endicott Peabody Saltonstall Prize (for public service leadership potential) (\$5,000)

TEACHING EXPERIENCE

Classroom Instruction

- 2019 – pres. University of Delaware
 - *Climate Adaptation Policy* (undergraduate and graduate, course developer and instructor)
 - *Climate Fiction, Science, and Communication* (undergraduate and graduate, course developer and instructor)
 - *Environmental Justice in Disasters* (undergraduate and graduate, course developer and instructor)
 - *Research Design* (graduate, course developer and instructor)
 - *Public Policy Analysis* (undergraduate, instructor)
- 2015 Stanford Law School, *Policy Lab: Catalyzing Nature Based Solutions for Flood and Coastal Defense* (graduate) (co-instructor and course developer)
- 2015 Stanford, Environment & Resources, *Designing Environmental Research* (graduate) (TA)
- 2014 Stanford, Civil and Environmental Engineering, *Climate Change Adaptation in Coastal Cities* (undergraduate and graduate) (course developer and instructor)

Guest Lectures (Selected)

- 2020 University of Delaware, *Global Studies Lecture Series* (Center for Global and Area Studies), *Professional Development* (Biden School), *Plan Sustainable Communities and Regions* (Biden School & Geography), *Prelude to Geography* (Geography),
- 2020 OSHER Institute of Lifelong Learning, *Environmental Issues*
- 2020 Harvard, Graduate School of Design, *Planning for Climate Change, Climate by Design*
- 2020 Berkeley, *Sustainable Environmental Design*
- 2020 Cornell, *Urban Adaptation to Climate Change*
- 2019 University of Delaware, *Weather* (English & Art History), *Plan Sustainable Communities and Regions* (Biden School & Geography), *Prelude to Geography* (Geography), *Environmental Policy* (Biden School), *Doctoral Dissertation Proposal Workshop* (Biden School), *Civil Infrastructure Systems and Transportation Seminar* (Engineering)
- 2019 Stanford University, *Environmental Policy* (Environment and Resources)
- 2019 University of Colorado, Boulder, *Environmental Governance*
- 2016 San Jose State University, *Geology 7: Earth, Time, and Life*
- 2015 Stanford University, *Social Ocean: Ocean Conservation, Management, and Policy*

Webinars and Online Video Series

- 2019 The Nature Conservancy, New York Division, “Managed Retreat,” August.
- 2019 American Society of Adaptation Professionals, Managed Retreat Group, June.
- 2016 EMI Webinar Series, “Nature-Based Strategies for Coastal Flood Defense,” Jan. 20
- 2015 EMI Webinar Series, “Climate Change Adaptation and Disaster Risk Reduction: Tools for Integration,” Sep. 4.
- 2013 Council of State Governments: East Video Series, “Managed Retreat Case Studies and Lessons Learned,” Aug. 12.

STUDENT ADVISING AND RESEARCH SUPERVISION

PhD Advising

Logan Gerber-Chavez, PhD, Disaster Science & Management, University of Delaware, Advisor

Emily Aiken, PhD, Geography & Spatial Sciences, University of Delaware, Committee member

Adam Andresen, PhD, Disaster Science & Management, University of Delaware, Advisor

Master’s Advising*Current*

Matthew Kirchoff, MS, Energy and Environmental Policy, University of Delaware, Analytical paper advisor (anticipated 2020)

Loonibha Manandhar, MS, Geography and Spatial Sciences, University of Delaware, Committee member (anticipated 2021)

Past

Emily Flynn, MA, Harvard Extension School, Primary advisor (2020)

Brian Capobianco, MS, Energy and Environmental Policy, University of Delaware, Committee member (2020)

Jeffrey Chubbs, MS, Energy and Environmental Policy, University of Delaware, Analytical paper reader (2020)

Michelle Woody, MS, Disaster Science and Management, University of Delaware, Reader (2020)

Collyn Chan, MS, MIT Department of Urban Planning, Reader (2019)

Undergraduate Advising

Advisor in Environmental Studies

Legal Research Advising

2012 – 13 Research advisor, Center for Climate Change Law, Columbia University

2007 – 10 Pre-Law Advisor, Kirkland House, Harvard College

SERVICE ACTIVITIES

Departmental and University Service

University

2020 – pres. Library Committee, Senate Faculty Standing Committees, University of Delaware

2020 – pres. Graduate Studies Committee, Senate Faculty Standing Committees, University of Delaware

Biden School

2019 – pres. International Committee, Member, Biden School of Public Policy and Administration, University of Delaware

Geography & Spatial Sciences

2020 – pres. Academic Council, Department of Geography and Spatial Sciences, University of Delaware

Disaster Research Center

2020 – pres. DISA (Disaster Science and Management) Program Development Committee, Disaster Research Center, University of Delaware

Ad Hoc

2020 Social events for students during COVID (Game Night, Halloween)

2020 Anti-Racism reading and discussion group organizer (Biden School, Geography)

Editorial

2020 – pres. Editorial Board, *SciNotes*

2018 – pres. Assistant Editor, *Journal of Environmental Studies and Science* (JESS)
Editor of Special Issue on Managed Retreat (forthcoming)

2009 – 10 Editor-in-chief and co-founder, *Harvard National Security Journal*

2009 – 10 Editor-in-chief, *Harvard Human Rights Journal*

Reviewer

Arctic Anthropology, Climate and Development, Climate Policy, Climate Risk Management, Climatic Change, Earth's Future, Environmental Research Letters, Global Environmental Change, International Journal of Mass Emergencies and Disasters, International Journal of Urban Science, Journal of Environmental Management, Journal of Environmental Planning and Management, Latin American Research Review, Marine Policy, Maritime Policy & Management, McGill Journal of Sustainable Development Law, Mitigation and Adaptation Strategies for Global Change, Natural Hazards Review, Ocean & Coastal Management, PLoS One, Regional Environmental Change, WIREs Climate Change

Conference Organization

2020 Columbia University Earth Institute, Managed Retreat Conference (2021)

2020 Urban Institute, Climate Migration Policy Summit (Nov 2020)

2018, 2019 Association for Environmental Studies & Sciences, Conference Committee

2017 - 2020 Association of Digital Humanities Organizations, Conference Reviewer

Leadership Positions

- 2020 – American Association of Geographers, Human Dimensions of Global Change Specialty Group, Board Member
- 2019 – Forerunner, Advisory Board
- 2019 – Ocean Visions, Fellow
- 2019 – Hawai'i Philanthropy Foundation, Advisory Board
- 2019 – 2020 Stimson Center, Coastal Ocean Resilience Vulnerability Index advisor
- 2018 – Climigration Network, Agenda Setter Leadership Team
- 2017 – Earth Systems Governance Network, North American Region, Co-Coordinator

Professional Affiliations

- 2010 - American Bar Association
- 2018 - American Political Science Association
- 2014 - American Society of Adaptation Professionals
- 2013 - Association of American Geographers
- 2015 - Association for Computers and the Humanities
- 2012 - Climate Evaluation Society
- 2010 - Environmental Law Institute

SELECTED RECENT MEDIA COVERAGE

Television

- 2020 Cimpatco TV, Climate Adaptation: Managed Retreat, Nov 18.

Radio & Podcast

- 2020 CBC Radio Canada, What on Earth, "[Will climate change make us retreat from the waterfront?](#)" 18 July.
- 2020 Clean Technica Podcast, "[Managed Retreat in the Face of Climate Change](#)," May 29.
- 2019 America Adapts, "[Everything you wanted to know about managed retreat](#)," Nov 11.
- 2019 Science Friday, "[As Seas Rise and Rivers Flood, Communities Look for a Way Out](#)," October 18.
- 2019 National Public Radio, "[Sweeping Study Raises Questions About Who Benefits from Buyouts of Flood-Prone Homes](#)," October 9.
- 2019 National Public Radio, "[Considering 'Managed Retreat'](#)," June 23.

Newspapers & Magazines

- 2020 Hakai Magazine, "[Protection for the Rich, Retreat for the Poor](#)," October 14.
- 2020 Washington Post, "[Climate Change Turns the Tide on Waterfront Living](#)," Apr 13
- 2020 The Baffler, "[On the Waterfronts: Flood buyouts and the economics of climate change](#)," Jan.
- 2019 Scientific American, "[Rich Residents Build Defenses against Rising Seas; Poor Ones Leave](#)," Nov 8.

- 2019 Bloomberg, "[Americans Start Adapting to Climate Change. They're Doing it Wrong,](#)" Nov. 7.
- 2019 New York Times, "[Rich Counties get More Help to Escape Climate Risk,](#)" October 9.
- 2019 Bloomberg, "[America's Great Climate Exodus is Starting in the Florida Keys,](#)" 20 Sep.
- 2019 International Business Times, "[Move Away from Coastal Areas While You Still Can, Scientists Sound Warning on Climate Change,](#)" 26 August.
- 2019 Harvard Magazine, "[Scholars Advocate 'Managed Retreat' before Climate Change Sinks Coastlines,](#)" August 22.
- 2019 New York Times, "[How to Rebound After a Disaster: Move, Don't Rebuild, Research Suggests,](#)" August 22.
- 2019 Vice, "[This is what America Could Look Like When Our Coasts are Under Water,](#)" July 23