Welcome to the Policy Research Seminar discussing the Challenge of Balancing Competing Demands for Water, co-sponsored by the Institute for Humane Studies (IHS), The Property and Environment Research Center (PERC), and Strata Policy. You have been invited to this event because we hold your work in high esteem for both its scholarly contributions and for its practical applications to our understanding of a free society. As such, we encourage you to join in what promises to be an active and lively conversation, and to draw from your own research and experiences in doing so.

One of the primary goals for this program is to help facilitate scholarly collaboration among the approximately 40 faculty, graduate students, policy experts, and IHS, PERC, and Strata staff in attendance. I hope you see this as a valuable opportunity to get to know dozens of like-minded scholars with similar research interests. We are hosting several world-class speakers who can share their experience and advice on how to flourish, as they have, in the trenches of academia, and an often-hostile policy world. We have found that some of the best conversations from our seminars occur spontaneously in the hallways and during receptions, so please be present for all meals and receptions.

Thank you again for joining us. We look forward to meeting each of you individually over the course of the seminar. We hope you benefit as much from this seminar as we benefit from having you in attendance. Please don’t hesitate to let us know if we may do anything to improve your experience.

Sincerely,

Ashley Donohue
Seminar Director
Institute for Humane Studies
The Challenge of Balancing Competing Demands for Water

Institute For Humane Studies, PERC and Strata Policy

April 8, 2017 • Sheraton Maui Resort & Spa • Lahaina, HI

About IHS

Founded in 1961 by Dr. F.A. “Baldy” Harper, the Institute for Humane Studies is a non-profit educational organization that engages with students and professors around the country to encourage the study and advancement of freedom. We support this audience in advancing the principles and practice of freedom in their careers and connect them to a community of individuals committed to the power of freedom and of ideas. Specifically, we facilitate the impact of professors both on and beyond their campuses – partnering with faculty to run campus programs and connecting scholars to opportunities to further their careers both in and out of the academy.

IHS Policy Research Seminars

Our Policy Research Seminars bridge the gap between the academic and policy worlds by connecting liberty-advancing scholars to policy research organizations. IHS Policy Research Seminars offer graduate students and faculty a unique opportunity to collaborate with public policy experts, and to discuss and shape their research on topics where the classical liberal perspective may be underrepresented. Our seminars are often attached to academic conferences, spanning a wide range of disciplines, and are held all over the United States. Not only do our seminars provide a platform for collaboration and networking, but we also provide hotel and travel reimbursement that can offset the costs of attending your favorite academic conference.

About PERC

PERC- the Property and Environment Research Center- is a research institute dedicated to improving environmental quality through property rights and markets.

About Strata

Strata is a non-profit research organization located in Logan, Utah that focuses on providing policymakers and the general public with quality information about energy and environmental issues. We also provide mentorship opportunities for students - from undergraduates to doctoral candidates - to immerse themselves in real-world research projects.
8:00 - 9:00  Breakfast & Registration  
Kapalua

9:00 - 9:15  Welcome and Seminar Introduction  
Ashley Donohue, Institute for Humane Studies  
Wendy Purnell, Wendy Purnell, Alliance for Renewing Indigenous Economies  
Napili

9:15 - 10:00  Roots of Resilience: The Timelessness of Water Markets  
Jamie Workman, AquaShares and Environmental Defense Fund  
Napili

10:00 - 10:15  Coffee Break  
Napili

10:15 - 11:30  Evolution of Institutions for Managing Water  
Moderator: Tim Fitzgerald, Texas Tech University  
Riparian Rights in the Southeastern US  
Jody Lipford, Presbyterian College  
Western Water Wars & Property Rights  
Zack Donohew, University of Central Arkansas  
Governing the Water Commons  
Skaidra Smith-Heisters, Arizona State University  
Napili

11:30 - 11:45  Coffee Break  
Napili

11:45 - 1:00  Current Water Policy Challenges  
Moderator: Megan Hansen, Strata  
Water in Utah: Institutional, Economic, and Political Options for Reform  
Grant Patty, Strata & Utah State University  
Devin Stein, Strata & Utah State University  
Brian Isom, Strata & Utah State University  
The Economics of Water Resource Management: Oahu, Maui, and Kona  
James Roumasset, University of Hawaii  
Chris Wada, University of Hawaii  
Napili
1:00 - 1:45
Lunch
Kapalua

1:45 - 2:30
Flint Water Crisis
Emily Garner, Virginia Tech
Napili

2:30 - 3:45
The Water-Energy Nexus
Moderator: Megan Hansen, Strata
Napili

California’s Aqueduct
Zack Donohew, University of Central Arkansas

Mixing Water and Oil? Water Use and Abuse in Oil and Gas Development
Tim Fitzgerald, Texas Tech University

The Desal Watergy Nexus
Jamie Workman, AquaShares and Environmental Defense Fund

3:45 - 7:00
Afternoon Break
Napili

7:00 - 7:45
Dinner
Coral Reef

7:45 - 8:30
Keynote Address: Pathways to Improving Water Management
Eric Edwards, Utah State University
Coral Reef

8:30 - 11:00
Reception
Coral Reef
Speaker Bios

ZACHARY DONOHEW
Zack is a Visiting Assistant Professor at the University of Central Arkansas where he is also affiliated with the Arkansas Center for Research in Economics. His research examines how property rights institutions affect the allocation and use of natural resources. Understanding how rules governing resources, such as water and minerals, are formed and evolve is critical for aligning private and social benefits.

Zack's applies the tools of economics to legal and social institutions to understand how resources move from open-access regimes to management under common-pool and private property regimes. His current work addresses how groundwater users deliberate to form management institutions in judicial settings.

ERIC EDWARDS
Dr. Eric Edwards is Assistant Professor of Applied Economics at Utah State University. He completed his Ph.D. in Economics and Environmental Science at the University of California, Santa Barbara in 2014. He also holds an MBA from the University of Rochester (2008) and a B.S. in Mathematics from the University of Idaho (2005).

Dr. Edwards is an environmental economist specializing in institutions and the management of natural resources. He has an active research program in the field of water resource management and is co-PI on the USDA National Institute of Food Agriculture grant Native Waters on Arid Lands, which seeks to enhance the climate resilience of agriculture on American Indian lands of the Great Basin and Southwest.

Dr. Edwards’ work in groundwater has focused on the differential impact of management on groundwater pumpers and how transaction costs can impede the adoption of beneficial management institutions. He has explored barriers to water markets in the United States and the effect of market institutions on water trading and welfare in the US, Chile, and Australia. He has also written about the impact of irrigation on American agriculture, and the potential for conservation and water markets to address growing urban water demand in the state of Utah. His current work examines the potential for tools like water markets to preserve the level of the Great Salt Lake and the impact of irrigation on climate resiliency.
TIMOTHY FITZGERALD

Timothy Fitzgerald is an Associate Professor of Business Economics in the Rawls College of Business at Texas Tech University. His primary research interests lie in the areas of energy, natural resources, and environmental economics.

He was awarded a Ph.D. by the University of Maryland.

EMILY GARNER

Emily Garner is currently a Ph.D. student at Virginia Tech in the department of Civil and Environmental Engineering studying Environmental and Water Resources Engineering. She obtained a Bachelor’s Degree in Civil Engineering from West Virginia University. Emily is passionate about studying microbiological aspects of water, particularly as they relate to public health. For her graduate work, Emily is studying the presence of emerging microbial contaminants in recycled water systems. Specifically, she is investigating the presence of opportunistic pathogens, such as Legionella and Naegleria fowleri (commonly known as the “brain eating amoeba”), and antibiotic resistant bacteria in recycled water systems and seeking to identify approaches to prevent growth of these organisms during pipeline transport from the treatment plant to consumers.

Emily is also a member of the Flint Water Study team from Virginia Tech that worked with citizens of Flint, Michigan to identify unsafe levels of lead in their drinking water.
MEGAN HANSEN

Megan Hansen currently works as a director of policy at Strata, where she helps set the organization’s strategic policy agenda of energy and environmental research projects. Megan started her career with Strata as an undergraduate researcher in 2012, where she learned to apply the ideas of individual liberty to policy research. Since 2013, Megan has enjoyed working full-time on Strata’s research team, leading a team of undergraduate researchers in conducting real-world analysis of energy and environmental issues. Among other topics, her research interests include the Endangered Species Act, regulation of small-scale hydropower, and policies that affect electricity production in the U.S.

In 2016, Megan earned her master’s degree in economics from Utah State University. Prior to that, she earned her undergraduate degree in economics and international studies, also from Utah State University. Megan has also completed a variety of professional development programs including the Liberty at Work professional training program with the Charles Koch Institute and the Bastiat Fellowship with the Mercatus Center at George Mason University. In her free time, Megan teaches a weekly yoga class and enjoys hiking in the beautiful mountains of northern Utah.

BRIAN ISOM

Brian Isom is a policy analyst at Strata Policy. He has been working at Strata since the summer of 2014. In his time there, he has been a part of numerous projects, including work on the unseen costs of renewable energy, state mandated renewable portfolio standards, and issues of water policy nationwide and within the state of Utah.

Brian is also currently a masters student at Utah State University.
JODY LIPFORD

Jody Lipford is a professor of economics at Presbyterian College in Clinton, SC. He received his B.S. degree in economics from Francis Marion University and his M.A. and Ph.D. degrees in applied economics from Clemson University. His research interests include property rights, public finance, and the economics of college athletics. He has published in *Environment and Development Economics*, *Global Economy Journal*, *The Independent Review*, *The Journal of Private Enterprise*, and *Education Economics*. In 2007, the Association of Private Enterprise Education awarded him for the Article of the Year in *The Journal of Private Enterprise*, and in 2012 Presbyterian College awarded him as the Faculty Scholar of the Year.

His interest in water rights developed when on sabbatical at the Property and Environmental Research Center, where he researched the long run conflict between Alabama, Florida, and Georgia over water in the Apalachicola-Chattahoochee-Flint river basin.

GRANT PATTY

Grant Patty is a policy analyst at Strata Policy. He graduated in 2016 from Utah State University with a B.S. in Economics. Grant is currently pursuing his Masters in Economics at Utah State University. He has four years of experience working with Strata in the energy and environmental policy world.

WENDY PURNELL

Wendy Purnell is an alum of PERC’s Enviropreneur Institute and a former IHS program director. For ten years, she has worked with environmental NGO Paso Pacifico to apply PERC’s ideas to conservation efforts in Central America. Currently, she is working with PERC’s Terry Anderson, Canada’s Tulo Centre of Indigenous Economics, and New Zealand’s Ngai Tahu Research Centre to launch the Alliance for Renewing Indigenous Economies. The intellectual foundation of this initiative is the new indigenous economics, dedicated to understanding indigenous market economies and the legal and administrative systems necessary to support them.
JAMES ROUMASSET

Professor Roumasset currently specializes in Water and Energy Economics at the University of Hawaii. The hallmark of his research (e.g. that with Dr. Chris Wada) is solving for efficient use of resource systems such as interlinked watershed, groundwater, and marine ecosystems. His policy analysis is based on the welfare analytics of a minimal government for the promotion of the public good and win-win policy reforms.

His previous publications and grants have demonstrated the fallacies of government intervention based on perceived market failures related to the behavior and agricultural organization in low income farming environments. Along with coauthors from Hawaii and the Philippines, he has shown that efficient management of the combined eco-economic system (the environomy) is sustainable but that focusing only on sustainable development typically undermines the public interest. Related research shows that where markets are inadequate, non-distortionary taxation and ecosystem payments can enhance the common good through market promotion instead of market destruction.

SKAIDRA SMITH-HEISTERS

Skaidra Smith-Heisters is a doctoral candidate in Environmental Social Science at Arizona State University. Inspired by political economist Elinor Ostrom and colleagues at the Center for Behavior, Institutions, and the Environment, Smith-Heisters studies how state policies facilitate natural resource users’ abilities to sustain livelihoods and solve environmental problems through cooperation, innovation, and voluntarism. Her current research focus is on institutional arrangements (rules and norms) within large-scale irrigation infrastructure systems — unconventional cases of polycentric self-governance in contexts involving second-order collective action dilemmas. She is working in the deserts of the southwestern United States to propose and refine diagnostic measures of polycentric governance in complex institutional arrangements.

Smith-Heisters received an M.A. in Environmental Social Science from Arizona State University in 2012. She is a transdisciplinary researcher with a background in natural resources management and policy analysis.
DEVIN STEIN

Devin Stein is a Policy Analyst with Strata Policy, where he leads a team of undergraduate researchers to publish policy reports and engaging communications pieces about the importance of energy and the environment. He is finishing his Master’s in Science in Economics with an emphasis in Public Choice at Utah State University in May 2017. Devin found his passion for environmental policy shortly before graduating with his undergraduate degree in Environmental Studies. He began working with Strata as a Student Research Associate in 2014 to gain real-world policy analysis experience under the mentorship of Randy Simmons and Ryan Yonk. Shortly after, Devin found his niche searching for market solutions to environmental problems.

After graduation, Devin is considering attending a Ph.D. program to further advance his research skills. He hopes to advance the ideas of individual liberty and government deregulation as a means of protecting the environment and society. When he’s not working, Devin doing anything outdoors, especially skiing, hiking, and camping.

CHRIS WADA

Chris Wada received a B.A. in Economics from the University of California, Berkeley and a Ph.D. in Economics from the University of Hawaii at Manoa. After graduation, he worked as a postdoctoral researcher at the University of Hawaii Economic Research Organization (UHERO) and works there currently as a research economist.

As a member of UHERO’s Project Environment team, Chris’ research has touched on many of Hawaii’s environmental issues, including groundwater allocation, watershed restoration, and invasive species management. His most recent work examines ecosystem service tradeoffs at the watershed scale. He has published in several peer-reviewed journals, including *Resource and Energy Economics, Ecological Economics*, and *the American Journal of Agricultural Economics*. 
JAMES WORKMAN

Workman creates natural resource conservation markets for water, energy and marine life. He wrote the award-winning Heart of Dryness: How the Last Bushmen Can Help Us Endure the Coming Age of Permanent Drought, and the forthcoming Sea Change: The Quiet Revolution Transforming Life Offshore – and On (ForeEdge). Workman studied at Yale & Oxford, taught at Wesleyan and Whitman, but his real education came from blowing up dams, releasing wolves, restoring wildfires, guiding safaris, smuggling water to dissidents after breaking down alone in Africa’s Kalahari Desert, and, well becoming a father. A former investigative journalist, he was enlisted by U.S. Interior Secretary Bruce Babbitt as a White House appointee to advance President Clinton’s conservation policies, later joined the World Commission on Dams under Nelson Mandela, and advises corporations, governments and international NGOs.

Based in San Francisco, he works and writes for Environmental Defense Fund, and has co-founded AquaShares, the world’s first online market that lets families and firms trade and monetize their water savings.

Staff Bios

JUSTIN DAVIS

Justin Davis serves as the Project Manager for the Policy Research Seminar Program at IHS, where he hopes to facilitate the advancement of classical liberal ideas by connecting the worlds of academia and policy. He completed his M.A. in Economics at George Mason University in 2016 and previously attained his B.S. in Business Administration from The Citadel in Charleston, South Carolina. His research interests include monetary institutions, entrepreneurship, and institutional development.

Justin also served in the United States Army’s Corps of Engineers for three years as the squad leader of a bridge erection team. His army tenure stationed him in Fort Knox, Kentucky and included a deployment to Afghanistan with the 502nd Engineer Company, where he was a part of the first multi-role bridge company in the country.
ASHLEY DONOHUE
Ashley Donohue is the Faculty Programs Manager at IHS. She oversees the Policy Research Seminar program and other programs that are geared towards liberty advancing junior and senior faculty. Outside of her work at IHS, she is finishing her doctoral dissertation on Anti-federalism and the ratification of the U.S. Constitution, and she previously taught U.S. History Discussion Section courses at the University of Houston.

She has two Chihuahuas named Jack and Espresso, and enjoys practicing yoga, traveling, and drinking too much coffee.

RYAN ZINSKI
Ryan Zinski joined the Institute for Humane Studies in June, 2011, as a Conference Management Assistant. Prior to this development, he had been interning at IHS with the Conference Management team throughout the spring.

Before joining IHS, Ryan interned for his Congressman in the 24th Congressional District of New York State, and then worked as a Grant Writer for a non-profit organization. Despite working with an amazing and passionate staff in the Congressional Office, he learned first-hand how difficult it is for federal agencies to address the needs of the public. Fortunately, Ryan was able to contribute to the community further as a Grant Writer, and helped secure private funding for programs that help people with disabilities secure and retain meaningful employment.

Ryan earned his B.A. from Colgate University in 2009 with concentrations in history and biology. His core academic interests include history, politics, political philosophy, and economics. Ryan also enjoys cooking, tinkering with electronics, exercising, being outdoors, and empowering people to live fulfilling and rich lives.
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Hotel Floorplan
CHALLENGE OF BALANCING COMPETING DEMANDS FOR WATER
If you are interested in becoming a partner organization, or would like to make a general inquiry about the Institute for Humane Studies’ Policy Research Seminars, contact Justin Davis at policyresearch@TheIHS.org.

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Please visit theihs.org or email policyresearch@theihs.org for more information on future IHS policy research seminars, and look for us at the upcoming annual meetings of the Western Economic Association and the State Policy Network.