What Lies Beneath: Reasons to Care (and be Excited) About Groundwater Use and Management in the Southwest

University of Colorado School of Law
Wolf Law Building, Wittemyer Courtroom
Thursday, June 7th and Friday, June 8th, 2018

Presented by the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment
39th Annual Summer Conference at Colorado Law

Founded in 1983 as the Natural Resources Law Center (NRLC) and now known as the Getches-Wilkinson Center for Natural Resources, Energy and the Environment, the Center is the oldest and preeminent law school institute in the country dedicated to natural resources law. The Getches-Wilkinson Center has expanded upon the legacy of the NRLC with a broader agenda and aspirations for deeper influence in law, policy and practice.

This year marks the 39th annual summer conference at Colorado Law. Over its rich history, the summer conference has addressed many different natural resource issues. The 2009 summer conference was dedicated to Clyde O. Martz, considered by many as the father of natural resource law in the United States. He was an exemplary teacher, mentor, counselor, advocate, and a professor of natural resources law for 15 years at Colorado Law. Professor Martz was one of the founders of the Rocky Mountain Mineral Law Foundation and of the NRLC.

In 2014, the Getches-Wilkinson Center launched the inaugural Clyde Martz Winter Symposium through the generous support of Brian Dolan and members of Davis Graham and Stubbs, who established the Martz Natural Resources Management Fund to support innovative programming and best practices in natural resources management.

In more recent years, the Center’s summer conference has largely focused on water law while the Martz Winter Symposium has touched on a wide variety of emerging issues concerning public lands, natural resources, energy and the environment.

The Getches-Wilkinson Center is proud to convene thought leaders and practitioners to address the most pressing issues of the day—and want to thank our sponsors whose generous support allows us to ensure our events our accessible to all.
Conference Introduction

As snowmelt levels continue to disappoint, multiple efforts are underway across the Southwest to protect reservoir storage levels, particularly in Lakes Mead and Powell along the Colorado River. These reservoirs—the largest in the US—are critically important, but ultimately, they are dwarfed by the region’s largest hydrologic asset: groundwater. Although barely mentioned in the Colorado’s “Law of the River,” groundwater is not only the primary water supply for many water users (especially in agriculture), but is intertwined with surface water in a variety of ways: physically, legally, and in management. Deplete one resource, and the other will undoubtedly be affected; enhance one, and the benefits can be mutual.

Featuring a blend of thematic and case study presentations from across the Southwest (defined broadly), this 2-day conference examines a variety of salient topics, including:

- Innovative cooperative and market-based governance arrangements in the Edwards Aquifer (TX), Diamond Valley (NV) and the San Luis Valley (CO)
- Aiding groundwater dependent ecosystems in the San Pedro River (AZ) and the Colorado River Delta
- Large-scale groundwater export schemes in California (Cadiz) and Nevada
- Mitigating threats to water quality from oil and gas development (Pavillion, WY) and new (and old) uranium mining near the Grand Canyon
- Lessons from interstate compact disputes from groundwater pumping in CO, KS, NE, and NM
- Using prior appropriation to regulate conjunctive use in the South Platte (CO)
- The evolving legal framework in Arizona, and implementation challenges of California’s SGMA
- The reach of decisions in Hawaii’s “groundwater conduit” litigation, and Agua Caliente in California
- Applying emerging technologies for brackish groundwater desalination (in El Paso, TX) and aquifer storage and recovery throughout the region
# Agenda Day One: Thursday, June 7th

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<th>Time</th>
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<td>8:00-8:10</td>
<td>Welcoming Remarks</td>
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<td>Doug Kenney, Director, Western Water Policy Program, GWC</td>
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<td>8:10-9:45</td>
<td>Session One</td>
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<td>Setting the Stage</td>
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<td><strong>Groundwater 101: Overview of the Essential Science</strong></td>
<td>Speaker: Gil Barth, S.S. Papadopulos &amp; Associates Inc.</td>
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<td><strong>Dealing with a ‘Secret, Occult and Concealed’ Resource: The Governance Conundrum</strong></td>
<td>Speaker: Sharon Megdal, University of Arizona</td>
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<td>9:45-10:15</td>
<td>Morning Networking Break</td>
<td>Refreshments provided in Boettcher Hall</td>
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<td>10:15-12:00</td>
<td>Session Two</td>
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<td>Innovative Cooperative and Market-Based Arrangements</td>
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<td><strong>From the Courthouse to the Marketplace: The Edwards Aquifer and Other Innovations in Groundwater Trading</strong></td>
<td>Speaker: Bonnie Colby, University of Arizona</td>
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<td><strong>Learning to Co-Exist in the Upper Rio Grande / San Luis Valley</strong></td>
<td>Speaker: Cleave Simpson, Rio Grande Water Conservation District</td>
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<td><strong>Sharing Access: A New Robust Way to Manage Groundwater in Diamond Valley, Nevada and Beyond</strong></td>
<td>Speakers: Sam Routson, Winnemucca Farms &amp; Water Asset Management Mike Young, University of Adelaide (Australia)</td>
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**Session Three**
1:00-2:45

**Seeking Clarity in the Courtroom**

*Reconciling Interstate Water Compacts with Groundwater Use: Lessons from the Past Fifty Years of Litigation*
Speaker: Burke Griggs, Washburn University

*Interstate Groundwater: Issues Raised in the Great Basin (Nevada and Utah)*
Speaker: Noah Hall, Wayne State University

*The Reach of the Aqua Caliente Decision: Threat, Opportunity, or None of the Above?*
Speaker: Heather Whiteman Runs Him, Native American Rights Fund

**Afternoon Networking Break**
2:45-3:15

Refreshments provided in Boettcher Hall

**Session Three continued**
3:15-4:45

**Seeking Clarity in the Courtroom**

*Hawaii’s “Groundwater Conduit” Interpretation: A New Era for the CWA?*
Speaker: Robert Adler, University of Utah Law School

*Moderated Q&A Panel: Remaining Challenges in Groundwater Law*
Moderator: Mark Squillace, University of Colorado School of Law
Event Sponsors

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Σ²Π
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Environmental and Water-Resource Consultants

U.S. Department of the Interior
Bureau of Reclamation

Walton Family Foundation
## Agenda Day Two: Friday, June 8th

### Session Four
8:00-9:30

**The Challenge of Implementation**

*Solving Conflict Through Prior Appropriation (sort of): The South Platte Story*
Speaker: Reagan Waskom, Colorado State University

*The Arizona Groundwater Management Act: Reflections and Lessons Learned*
Speaker: Jim Holway, Babbitt Center for Land and Water Policy

*Implementing California’s SGMA: Nobody Said it Would Be Easy*
Speaker: Stefanie Morris, Best, Best & Kreiger

### Morning Networking Break
9:30-10:00

Refreshments provided in Boettcher Hall

### Session Five
10:00-12:00

**Fighting for Water Quality and Groundwater Dependent Ecosystems**

*Reconciling Oil and Gas Development and Groundwater Protection: Lessons from Pavillion, WY*
Speaker: Dominic DiGiulio, Stanford University

*A New Era of Uranium Mining in the Colorado Plateau*
Speaker: Dave Kreamer, University of Nevada Las Vegas

*Fighting for the Last Oasis in Southern Arizona: The San Pedro River*
Speaker: Holly Richter, The Nature Conservancy

*Working Across the US/Mexico Border: Reconciling Groundwater Development and Colorado River Delta Restoration*
Speaker: Eloise Kendy, The Nature Conservancy
Lunch
12:00-1:00
Lunch provided on site, Schaden Commons 2nd Floor

Session Six
1:00-3:00
Engineering/Infrastructure to the Rescue?

* Cadiz on the Fast Track?*
  Speaker: Amy Steinfeld, Brownstein Hyatt Farber Schreck LLP

* Opportunities for Expanded ASR Applications? South Denver-Metro*
  Speaker: Courtney Hemenway, Hemenway Groundwater Engineering Inc.

* Groundwater and a Sustainable LA: A Roadmap to Living Without Surface Water Imports*
  Speaker: Stephanie Pincetl, California Center for Sustainable Communities

* Large-Scale Brackish Groundwater Desalination: The El Paso Experience*
  Speaker: Scott Reinert, El Paso Water Utilities

Afternoon Networking Break
3:00-3:30
Refreshments provided in Boettcher Hall

Panel Discussion and Q&A
3:30-4:30

*Concluding Panel Discussion: Envisioning the Future of Groundwater Management*

Panelists:
Jim Holway, Babbitt Center for Land and Water Policy
Sharon Megdal, University of Arizona
Stephanie Pincetl, California Center for Sustainable Communities
Mike Young, University of Adelaide (Australia)
Speaker Biographies (alphabetical by last name)

Robert Adler

Robert W. Adler is the Jefferson B. and Rita E. Fordham Presidential Dean and Distinguished Professor of Law at the University of Utah, S.J. Quinney College of Law, where he is also affiliated with the Wallace Stegner Center for Land Resources and the Environment. He is the author or co-author of six books on environmental and water law and policy, and a wide range of articles and book chapters in the field of environmental and natural resources policy. He has represented Utah and national environmental groups in pro bono litigation, and served on the boards of local and national organizations and advisory groups, including the League of Conservation Voters, FRIENDS of Great Salt Lake, Hawkwatch International, EPA Federal Advisory Committees, and a Taskforce on Unfunded Federal Mandates for the U.S. Advisory Commission on Intergovernmental Relations.

Gilbert Barth

Dr. Gilbert Barth completed his doctorate in Civil Engineering - Water Resources at the University of Colorado in Boulder and continued with a National Academy of Sciences/USGS Post-Doctoral appointment. Since that time, other than a brief appointment with the USGS, Dr. Barth has worked in private industry focusing on quantitative hydrogeology of systems having considerable surface-water/groundwater interaction. Evaluations have included assessing potential for improving salmonid and endangered species habitat, anticipating multi-state drought and climate change impacts in more than 15 western basins, and communicating results and underlying limitations to a wide range of stakeholders.
Dr. Bonnie Colby is a faculty member at the University of Arizona in the Departments of Agricultural and Resource Economics, Hydrology and Atmospheric Sciences. Her research, teaching, and outreach focus on economic tradeoffs in water and energy management, climate change adaptation, and incentive-based agreements to improve water supply reliability. Dr. Colby’s undergraduate degree is from the University of California, Davis and her Ph.D. from the University of Wisconsin.

Colby has provided invited testimony to state legislatures, state and federal courts and the U.S. Congress. She has taught at Harvard University’s Executive Training Programs and in professional training programs for judges and water masters, attorneys, engineers, appraisers and conservation leaders. She works with western states, federal agencies, private firms, tribal governments, water districts and NGOs to develop and implement new strategies to improve water and energy supply reliability and cost-effectiveness, and to resolve natural resource conflicts.

Dr. Colby has authored over one hundred journal articles and eight books, including Risk and Resilience: The Economics of Climate, Water, and Energy in the Arid Southwest; Water Markets in Theory and Practice; and Braving the Currents: Resolving Conflicts Over the Waters of the American West.

Dominic DiGiulio

Dominic DiGiulio is a senior research scientist at PSE Healthy Energy and a visiting scholar in the Department of Earth System Science at Stanford University. During his 31 years with the U.S. EPA’s Office of Research and Development, Dr. DiGiulio conducted research on subsurface gas flow, vapor transport, and solute migration. The focus of his current work is assessment of human health and environmental impacts from oil and gas development.
Burke W. Griggs

Burke W. Griggs is an associate professor of law at Washburn University. He specializes in American water law, and has published articles on groundwater law, surface water-groundwater issues, interstate water litigation, and water policy. In his prior capacity as an assistant attorney general for the State of Kansas, Mr. Griggs represented the state in *Kansas v. Nebraska & Colorado* (2009-2015), an original action before the Supreme Court to enforce the Republican River Compact. Mr. Griggs also served as counsel of record in Kansas's first reserved tribal water rights settlement, with the Kickapoo Tribe of Kansas, and drafted legislation enabling the formation of Local Enhanced Management Areas for high-stress regions of the High Plains-Ogallala Aquifer in Kansas. Mr. Griggs is a fellow at the Woods Institute for the Environment at Stanford University, where he contributes to its Water in the West Project. He holds a B.A. from Stanford, a Ph.D. from Yale, and a law degree from the University of Kansas.

Noah Hall

Noah Hall’s expertise is in environmental and water law, and his research focuses on issues of environmental governance, federalism, and transboundary pollution and resource management.

He joined the Wayne Law faculty in 2005. For the 2014-15 academic year, he served as the Law School’s associate dean for student affairs. Previously, he taught at the University of Michigan Law School and was an attorney with the National Wildlife Federation, where he managed the Great Lakes Water Resources Program for the nation’s largest conservation organization. Hall also worked in private practice for several years, representing a variety of business and public-interest clients in litigated and regulatory matters. He continues to represent a variety of clients in significant environmental policy disputes. In 2016, Hall was appointed special assistant attorney general for Michigan, joining the special counsel team for the Flint water investigation.

Hall is founder of the Great Lakes Environmental Law Center, a nonprofit environmental organization that provides legal assistance to community organizations, environmental non-governmental organizations, and local, state and regional governments.

He graduated from the University of Michigan Law School and University of Michigan School of Natural Resources and Environment, concentrating in environmental policy. After law school, he clerked for the Hon. Kathleen A. Blatz, chief justice of the Minnesota Supreme Court.
Courtney Hemenway

Courtney Hemenway is the President of Hemenway Groundwater Engineering, Inc. and is a registered Professional Engineer in Colorado. He is a civil engineer with expertise in groundwater hydrology and modeling, well design and construction, Aquifer Storage and Recovery, and hydraulic fracturing of deep bedrock aquifer wells, with over 37 years of experience in these areas. In his groundwater hydrology consulting, Mr. Hemenway has conducted numerous municipal groundwater development programs and has participated in many water resources management projects involving the conjunctive use and interaction of groundwater and surface water. Over his career, Mr. Hemenway has been involved in the design, drilling, and testing of over 125 deep Denver Basin wells, numerous shallow alluvial wells, and over 1,500 shallow alluvial soil borings and monitoring wells. He has also been the project engineer on Aquifer Storage and Recovery (ASR) projects since 1991 and has managed the installation and operation of 36 ASR wells in the Denver Basin. Throughout his groundwater consulting, Mr. Hemenway has consistently focused on improving well design and development techniques to increase well yields and sustainability. Mr. Hemenway has developed innovative methods to stimulate yields from water wells through horizontal well technologies and hydrofracturing techniques, and has developed successful programs to rehabilitate existing wells. Mr. Hemenway is a member of the American Society of Civil Engineers, National Ground Water Association, Colorado Ground Water Association, American Water Works Association, American Water Resources Association, and National Society of Professional Engineers. Mr. Hemenway is a Colorado native and graduate of Colorado State University, with Bachelor and Master of Science degrees in Civil Engineering. The M.S. degree focused on groundwater hydrology.

Jim Holway

Jim Holway is director of the Babbitt Center for Land and Water Policy at the Lincoln Institute of Land Policy. The Babbitt Center works to integrate land use and water planning and management in the Colorado River Basin. He also serves as the Vice President of the elected Board of the Central Arizona Water Conservation District. Jim has previously served as Assistant Director of the Arizona Department of Water Resources, as a professor of practice and the Arizona State University Coordinator for the Arizona Water Institute, and as Director of the Western Lands and Communities program for the Sonoran Institute and the Lincoln Institute of Land Policy. Jim earned his bachelor’s degree in political science from Cornell University and both a Ph.D. and Master’s in Regional Planning from the University of North Carolina.
Eloise Kendy

Eloise Kendy joined The Nature Conservancy in 2006 to keep rivers flowing and healthy, in harmony with economic development. Currently, she provides strategic and technical support to innovative water-sharing agreements across the West, including bi-national efforts to restore the Colorado River Delta in Mexico. Prior to TNC, Eloise worked with the US Geological Survey, International Water Management Institute, US Senate, and in private consulting. She earned her Ph.D. in 2002 in Environmental Engineering from Cornell University (Ithaca, NY), her M.S. in 1986 in Hydrogeology from The University of Wisconsin (Madison), and her B.A. in 1983 in Geological Sciences from the University of California (Santa Barbara).

Doug Kenney

Doug Kenney is Director of the Western Water Policy Program within the University of Colorado Law School in the Getches-Wilkinson Center for Natural Resources, Energy and the Environment. He is also founder and current chair of the Colorado River Research Group. He has written extensively on several water-related issues, including law and policy reform, river basin and watershed-level planning, climate change adaptation, and water resource economics. Dr. Kenney has served as a consultant to a variety of local, state, multi-state, and federal agencies, including several Interior Department agencies, EPA, and the US Forest Service; and national governments and NGOs in Asia and Africa. Additionally, he has made presentations in 21 states (and the District of Columbia), 8 nations, and 5 continents. He has a B.A. in biology from the University of Colorado, a M.S. in Natural Resources Policy and Administration from the University of Michigan, and a Ph.D. in Renewable Natural Resource Studies from the University of Arizona.
Leonard Konikow

Leonard Konikow received a B.A. in geology from Hofstra University, and an M.S. and Ph.D. from Penn State University. He started working for the U.S. Geological Survey as a hydrogeologist in 1971 and is now an Emeritus Scientist. His research interests include the development and application of simulation models for groundwater flow and contamination problems, groundwater-surface water interactions, coastal submarine groundwater discharge processes, and groundwater depletion. He is a member of the National Academy of Engineering, Fellow of the American Geophysical Union, and has received the M. King Hubbert Science Award from the National Ground Water Association and the O.E. Meinzer Award from the Geological Society of America. He also served on several committees of the National Research Council and in leadership positions in several professional societies.

David Kreamer

David Kreamer is a Professor of Geoscience, a Graduate Faculty member in Civil and Environmental Engineering, and past Director of the interdisciplinary Water Resources Management Graduate Program at the University of Nevada, Las Vegas. Dave serves as Vice President for Science and Program for the International Association of Hydrogeologists, is past Director of the National Groundwater Association’s Division of Scientists and Engineers, and is a past President of the Universities Council on Water Resources. Dave’s research includes environmental contamination, spring vulnerability and sustainability, and clean water and energy supply, particularly in the Economically Developing World. He has authored over 65 professional publications and has recently co-authored the 3rd Edition of the textbook “Contaminant Hydrogeology” (Waveland Press). He has given over 150 invited lectures, seminars and workshops in recent years for U.S. Environmental Protection Agency, U.S. Bureau of Land Management, the National Ground Water Association, and the Superfund University Training Institute, and has presented short courses for over half the States or Commonwealths in the United States. He also has given presentations at over 50 Universities, and has been an invited speaker in Europe, Asia, the Caribbean, Australia and the Pacific island nations, South America, Africa and the Middle East. David has served as a professional consultant and expert witness in legal proceedings concerning groundwater, testified before the U.S. Congress on groundwater pollution challenges, and has been an external peer reviewer for numerous groups and projects including: nuclear waste storage at Yucca Mountain, external appraisal of Argonne National Laboratory, and evaluation of contamination at Rocky Flats Plant in Colorado, U.S.A.
Sharon B. Megdal

Dr. Sharon B. Megdal is Director of The University of Arizona Water Resources Research Center, a research and Extension unit in the College of Agriculture and Life Sciences. She also holds the titles: Professor and Specialist, Department Soil, Water, and Environmental Science; C.W. & Modene Neely Endowed Professor; and Distinguished Outreach Professor. She serves as Director of the University of Arizona Water, Environmental and Energy Solutions Program, which is funded by the University of Arizona Technology Research Initiative Fund (TRIF).

The geographic scope of Sharon’s water policy and management work ranges from local to international. Current projects include: comparative evaluation of water management, policy, and governance in growing, water-scarce regions; groundwater management and governance; groundwater recharge; and transboundary aquifer assessment. Sharon writes a regular water policy column (https://wrrc.arizona.edu/columns) and teaches the multi-disciplinary graduate course Water Policy in Arizona and Semi-arid Regions.

Sharon holds board and leadership positions in national and international professional associations. Since January 2009, Sharon has served as an elected member of the Board for the Central Arizona Water Conservation District, and she currently serves as Board Secretary. Sharon holds a Ph.D. degree in Economics from Princeton.

Stefanie Morris

Best Best & Krieger LLP Partner Stefanie Morris served four years as the in-house general counsel for the State Water Contractors before rejoining the firm in 2017. The State Water Contractors is the umbrella group representing the 27 water agencies that obtain water from the State Water Project. Stefanie has practiced almost exclusively in the area of water rights, but also has experience with environmental litigation.

Her water experience includes working on complex Sacramento Delta water issues and surface water rights matters throughout California. In addition, Stefanie has extensive groundwater experience, including the massive adjudications of the Santa Maria and Antelope Valley groundwater basins. Stefanie also helped to negotiate and draft parts of the Sustainable Groundwater Management Act on behalf of the Association of California Water Agencies.

Licensed in both California and Nevada, Stefanie also worked on Truckee River issues that cross state lines. Stefanie is a regular speaker on water law and ethics topics, including speaking on SGMA at the American Bar Association’s annual water conference, addressing water transfers at two International Bar Association conferences, and various other conferences in California and Nevada.
Stephanie Pincetl

Dr. Stephanie Pincetl does research on cities and how they impact resources far and near, such as water and energy resources and ecosystems, how those resources are used in cities, where, by whom, and to do what. She focuses on quantifying those flows, including urban generated wastes like greenhouse gases, and how institutions, regulations and rules shape the ways the flows are appropriated, and how cities are built and organized. She has created the first ever interactive energy web atlas that describes building energy use in Los Angeles County (www.energyatlas.ucla.edu) and a regional water hub http://www.waterhub.ucla.edu/. Buildings account for 40% of urban GHGs and the Atlas shows the relationships between building age, size, use with energy consumption, as well as energy use and sociodemographic characteristics in the residential sector. She has also led research of the Los Angeles County water system. Pincetl assembles interdisciplinary teams of researchers to conduct work: ecologists, engineers, and hydrologists.

Scott Reinert

Scott Reinert manages groundwater resources, well drilling and monitoring, and the wellhead protection program, and provides data to support the utility’s participation in regional water planning. He has 25 years of experience as a hydrogeologist. Mr. Reinert worked at Sergent, Hauskins, and Beckwith Geotechnical Engineers and geohydrology Associates in Albuquerque, New Mexico, before being hired by El Paso Water Utilities in 1999. He has held a number of positions during his tenure at the utility. Mr. Reinert has served as project manager for the Well Infrastructure Analysis Program and manages development of groundwater modeling for the Exempt Aquifer Application that will permit more flexibility in operating the Kay Bailey Hutchison Desalination Plant's injection wells. He also developed data for the 2011 Far West Texas Regional Water Plan by supplying population and demand statistics for the city of El Paso, as well as water supply strategies and costs. The 50 year regional plan was incorporated into the State Water Plan which was approved by the Texas Legislature in 2012. Mr. Reinert earned a bachelor's degree in geology at McMurry College and a master’s degree in civil engineering from Colorado State University. He is a registered Professional Geologist and Professional Engineer in Texas and a registered Certified Scientist in New Mexico and President of the Multi State Salinity Coalition, MSSC.
Holly Richter

Holly Richter is the Arizona Water Projects Director for The Nature Conservancy. Her work focuses on the design and development of water infrastructure projects and mitigation programs that support flowing rivers, including the San Pedro River, Verde River, and the Colorado River/Delta in Mexico, working with other Conservancy staff and external partners. An area of particular emphasis in her work is the development of a regional groundwater replenishment network, consisting of stormwater and effluent recharge projects along 25 miles of the Upper San Pedro River, to increase groundwater storage and baseflows within the San Pedro Riparian National Conservation Area.

Holly began her career with The Nature Conservancy in 1987, and has worked along several rivers in the Colorado River Basin during her career. She completed her PhD at Colorado State University, and focused her research there on the development of an interdisciplinary riparian ecology, geomorphology, and hydrology model capable of forecasting the downstream implications of potential reservoir construction on the Yampa River.

Holly later served as a founding member and Chair of the Executive Committee of the Upper San Pedro Partnership, a consortium of 21 member agencies addressing regional water needs, and was also appointed to the Organizing Board of the San Pedro Water District by Governor Napolitano in 2007, serving as their Vice Chair. She initiated the bi-national wet dry mapping citizen science program for the San Pedro River in 1999, which continues to engage hundreds of volunteers along 320 miles of the river and its tributaries in the U.S. and Mexico every year. Holly also served as the Director of Conservation for the Arizona Chapter for four years, overseeing over 30 conservation staff working throughout the State.
Prior to returning to the West in 1992, Mr. Routson served as the Director for Mission Activities, Special Operations and Low-Intensity Conflict, Department of Defense. His responsibilities covered the spectrum of Special Operations and Low-Intensity Conflict. In light of operations in South West Asia, he assisted the Kuwaiti resistance in laying the foundation for the restructuring and rebuilding of Kuwait. Further, he was recalled to active military service and participated in the actual liberation of Kuwait, being one of the first Americans to enter Kuwait City and cited for his service during the ground combat phase of Operation Desert Storm.

Mr. Routson served in both the Reagan and Bush Administrations as a Deputy Assistant Secretary of the Navy. In addition to Reserve Force issues, he has been deeply involved in anti-drug matters. For his work, he was awarded the Department of the Navy's "Distinguished Public Service Medal" and has received national recognition from various groups such as the American Legion for public service in combating illegal drug use among children.

Born and raised on an Idaho cattle ranch, Mr. Routson received a B.S. in Forestry from the University of Idaho in 1972. Commissioned a 2nd Lieutenant in the United States Marine Corps, he graduated first in a class of 212 officers from the Marine Corps Tactical Basic School.

After working as an intern in the United States House of Representatives, he returned to Brigham Young University and received a degree in Law, receiving the "American Jurisprudence 2nd" Award for Excellence. In addition, he has a fourth degree, a M.A. in Government from Georgetown University.

Mr. Routson has represented individuals and businesses before federal and state regulatory agencies on environmental and natural resource issues, and has been a shareholder and officer in one of America's largest private integrated agricultural and food processing companies. In addition, he has served on various public and private Boards and Commissions.
Cleave Simpson

Cleave Simpson is the General Manager of the Rio Grande Water Conservation District in Alamosa, Colorado. The District was created by the Colorado General Assembly and formed in 1967 by a vote of the people residing within its boundaries. The RGWCD was created to protect, enhance and develop water resources in the Rio Grande River basin inside the state of Colorado. The district encompasses a five county region, which includes Alamosa, Rio Grande, Conejos and portions of Saguache and Mineral Counties within the Rio Grande River basin.

Mr. Simpson is a 1984 graduate of the Colorado School of Mines, receiving his Bachelor of Science degree in Mining Engineering. After spending time working in Texas and Australia, he and his wife, Cathy, of over 30 years, returned to their home town of Alamosa to be close to family and friends. Mr. Simpson is a fourth generation San Luis Valley farmer and rancher and works closely with his son and father to manage their family farms and cow herds.

When not working on Valley water issues or farming/ranching, Mr. Simpson enjoys classic American Hot Rods, particularly his 1957 Chevy Cameo pickup, as well as spending time camping and fishing with his wife.

Mark Squillace

Professor Mark Squillace joined the faculty at the University of Colorado Law School in 2005 and served as the Director of the Natural Resources Law Center there until 2013. Before joining the Colorado law faculty, Professor Squillace taught at the University of Toledo College of Law where he was named the Charles Fornoff Professor of Law and Values. Professor Squillace has also taught at the University of Wyoming College of Law, and at Wyoming he served a three-year term as the Winston S. Howard Professor of Law. He is a former Fulbright scholar and the author or co-author of numerous articles and books on natural resources and environmental law, including most recently, Environmental Decisionmaking for the 21st Century (2016). In 2000, Professor Squillace took a leave from law teaching to serve as Special Assistant to the Solicitor at the U.S. Department of the Interior. In that capacity he worked directly with the Secretary of the Interior, Bruce Babbitt, on a wide range of legal and policy issues.
Amy Steinfeld

Amy Steinfeld’s unique practice focuses on the intersection of land use and water law. Amy has more than a decade of experience in the permitting and development of controversial projects throughout the state.

She regularly advises water districts, regulated utilities, cities, developers, and agricultural interests in all aspects of water law. Her matters include water rights permitting and due diligence, complex groundwater adjudications, water transfers, urban water management planning, water supply/demand evaluations under Senate Bill 610 and SB 221, infrastructure development, and all other matters associated with the use, conveyance, development and management of surface water and groundwater supplies.

Amy is recognized for her specialized experience in Colorado River Issues and Endangered Species Act compliance. Amy’s broad understanding of environmental issues, her practical approach to the law, and her ability to work closely with local governments, allow her to efficiently move projects forward and reduce permitting delays. Amy writes and speaks regularly on water and land use issues.

Before going into law, Amy served as the environmental director and an environmental consultant and analyst for the California Safety Compliance Corporation. She traveled to 37 countries to conduct social and environmental audits of factories for large manufacturing companies, and developed an environmental audit tool. When not at the office, Amy enjoys spending time with her son and taking photographs.

Reagan Waskom

Reagan Waskom currently serves as the Director of the Colorado Water Institute and the Chair of the Colorado State University Water Center. Dr. Waskom is a member of the Soil & Crop Sciences department at CSU, where he has worked on various water related research and outreach programs for the past 32 years, conducting statewide educational and applied research programs on water quality, water quantity, water policy and natural resource issues related to water use. In addition, Dr. Waskom provides oversight for the CSU Extension water outreach program and personnel. Dr. Waskom’s current research emphasis is on the integrated use of surface and groundwater, the impacts of shale gas development on water resources, and agricultural water conservation in the Colorado River basin and Ogallala Aquifer.
Heather Whiteman Runs Him

Heather Whiteman Runs Him is a citizen of the Crow (Apsaalooke) Nation, grew up on the Crow Reservation, and works as a senior staff attorney at the Native American Rights Fund in Boulder, Colorado, where she focuses on tribal water rights, natural resource and sacred site protection, and international legal advocacy on rights of indigenous peoples. She previously served as Joint Lead Counsel for the Crow Tribe of Montana, where she oversaw a wide variety of legal issues and worked to secure federal and tribal ratification of the Crow Water Rights Settlement. Prior to working with the Crow Tribe, Heather practiced in New Mexico as an Assistant Public Defender, and additionally worked as an associate attorney in private practice, serving tribal governmental clients on a wide variety of issues.

Heather received her Juris Doctorate from Harvard Law School. She received her B.A.F.A. with high honors in Art History, and with honors in Studio Art from the University of New Mexico in Albuquerque, and her A.F.A. from the Institute of American Indian Arts in Santa Fe, New Mexico. She is admitted to practice before the state court of New Mexico, and several federal trial and appellate courts.

Michael Young

Professor Mike Young holds a Research Chair in Environmental and Water Policy at the University of Adelaide and a member of its Centre for Global Food and Resources.

One of the publicly acknowledged architects of Australia’s water entitlement and allocation systems, he was the Founding Executive Director of the University of Adelaide’s Environment Institute, is a fellow of the Academy of Social Sciences in Australia, and is a Distinguished Fellow of the Australian Agricultural and Resource Economics Society.

Mike is a member of the Global Water Partnership’s Technical Committee and is leading its water-sharing initiative. In 2013/14, he held the Australia Chair at Harvard University and in recent years has been working on the development of unbundled water sharing systems in the western United States.
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The Law of the River

The Law of the River: An Unforgettable Learning Opportunity

The Colorado River provides water for over 40 million people who rely on it for agricultural, industrial, and domestic needs. The River once flowed freely from its headwaters in Colorado to the Gulf of California. Today, 29 dams impound the Colorado, and hundreds of canals carry its water to cities all over the west. Without the Colorado River, the west as we know it would not exist. Phoenix would be a tiny hamlet. Las Vegas might still be a one-horse town. The Imperial Valley would not explode with agricultural production. The laws and policies that govern the Colorado make the west possible. Today, with increasing cycles of drought, these same laws must adapt in order to preserve the region for people and the ecosystems on which they depend.

Next spring, the University of Colorado Law School is offering a seminar covering the Law of the River. Students will learn about the treaties, legislation, and court cases that allocate the Colorado's flow. They will study the geology and history of the River, and its role in preserving endangered and threatened species. After four months of intensive study, the class will culminate with a two-week rafting trip through the Grand Canyon stretch of the Colorado River. The students selected for the class will go through a competitive process. They will have to demonstrate that they have the commitment and character to make the most of this unique opportunity. The overriding goal for the class is that these law students will become their generation’s leaders in promoting sustainability.

To ensure that we can meet that goal, we need your help. There are two ways for you to consider supporting the students:

First, you can make a donation of any size. Dean S. James Anaya has generously offered to match donations to the Law of the River fund up to a total of $16,000. The course and river trip will cost approximately $4,100 per student. Each student has committed to pay $1,000, and to help fundraise for the balance. Your tax-deductible contribution will help ensure that tomorrow's sustainability leaders have the best education possible without incurring additional debt.

Second, you can join us on the Grand Canyon! We are offering a limited number of seats on the two-week rafting trip to people willing to sponsor a student. We are asking donor-participants to pay for their own seats, and to fund at least one student seat. Your $8,200 will purchase the trip of a lifetime, with the added bonus of fire-side educational talks by an expert in the field, and the company of engaged and informed students. In 2017, we took three alumni sponsors, who all agreed it was one of the most memorable and enjoyable experiences of their lives. Our 2019 put-in date is May 7, and the take-out is May 20. We will gather in Las Vegas, NV on May 6, and return on the evening of May 20.

To make a donation or inquire about joining us as a donor-participant, please e-mail Professor Sarah Krakoff at sarah.krakoff@colorado.edu. To donate, you can also send contributions directly to Sarah Krakoff, Campus Box 401, Boulder CO, 80309. Checks should be made out to the University of Colorado, Law of the River Fund.
Established in 1892, the University of Colorado Law School is one of the top public law schools in the United States. Colorado Law School’s diverse student body is selected from among the statistically best applicants from every corner of the nation representing over 100 undergraduate institutions, and its highly published faculty is dedicated to interacting with students both inside and outside the classroom. The school’s state-of-the-art green building is located at the base of the Rocky Mountains in beautiful Boulder, Colorado. With about 500 students and a low student to faculty ratio, Colorado Law School is a thriving academic community where the study of law is embraced to create leaders who recognize the civic responsibilities essential to the legal profession.

Getches-Wilkinson Center for Natural Resources, Energy, and the Environment

The Getches-Wilkinson Center for Natural Resources, Energy and the Environment endeavors to serve the people of the American West, the nation, and the world through creative, interdisciplinary research, bold, inclusive teaching and innovative problem solving in order to further true sustainability for our use of the lands, waters, and environment. Major programs and initiatives focus on natural resources, water and public lands issues in Colorado and the West; energy and environmental security in the developing world; electricity regulation and energy policy; climate change law and policy; and native communities and environmental justice. The name comes from the contributions of two iconic figures in the law school’s environmental law history, David Getches and Charles Wilkinson.

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