



CENTER FOR LAW, ENERGY & THE ENVIRONMENT

2016 ANNUAL REPORT

YEAR IN REVIEW **A LOOK AHEAD**

BerkeleyLaw
UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment



Our goal at the Center for Law, Energy & the Environment (CLEE) is to bring together legal analysis with policy, science, and technical expertise to develop pragmatic policy solutions to critical environmental and energy challenges.

We work with public, private, and community partners on interdisciplinary research to identify equitable and effective solutions to persistent and emerging problems. We focus on producing work that is timely, relevant, and actionable in the following areas:

CLIMATE & ENERGY – creating pathways for achieving greenhouse gas emissions reductions and supporting transitions to renewable energy

WATER – developing innovative approaches and institutional solutions to pressing water challenges in California and beyond

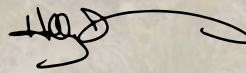
OCEANS – creating integrated and inclusive governance systems that support healthy, productive, resilient oceans

LAND USE – furthering sustainable planning, community development, and transportation

CLEE also helps educate the next generation of environmental and energy leaders by supporting student organizations, administering two certificate of specialization programs, and engaging students in real-world problem-solving. We are so proud of the students that come through our halls each year and the mark they leave on the world.


JORDAN DIAMOND
EXECUTIVE DIRECTOR


DANIEL FARBER
CO-FACULTY DIRECTOR


HOLLY DOREMUS
CO-FACULTY DIRECTOR

ABOUT THE CENTER



Our climate and energy initiatives seek to help California and other jurisdictions meet their ambitious greenhouse gas emission targets by fostering collaboration with government, business, and nonprofits

2016 FOCUS: BOOSTING BUSINESSES THAT HELP MEET OUR CLEAN ENERGY GOALS

California and other jurisdictions around the country and world cannot meet their climate and energy goals without significant investment and innovation from the private sector. Our climate and energy initiatives provide policy guidance to increase business and finance involvement in meeting these environmental goals in a cost-effective and efficient manner.

MEASURING ENERGY SAVINGS TO OPEN MARKETS

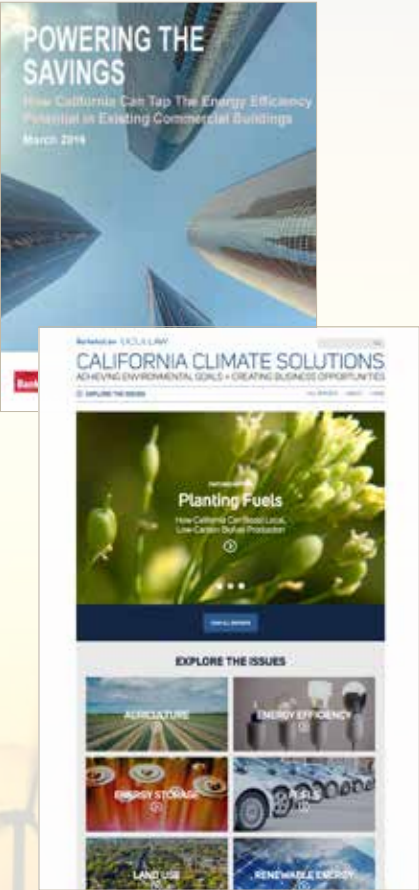
The expanded use of solar power for homes and small businesses in California has been successful as a result of the ease of measuring the energy generated and offering financing strategies based on those savings. Retrofitting existing buildings to make them more energy efficient is one of the most cost-effective ways to reduce emissions, but financing for these retrofits has been limited. In **Powering the Savings: How California Can Tap the Energy Efficiency Potential in Existing Commercial Buildings** we describe the need for best available technologies to measure energy savings as a result of commercial building retrofits. Once energy savings can be measured, market-led financing options will follow and energy efficient retrofits can be more widely deployed.

BROADENING HORIZONS FOR CLIMATE CHANGE & BUSINESS

Since 2009, CLEE’s **Climate Change & Business Research Initiative** has effectively engaged business, nonprofit and government leaders in a collaborative project to achieve economic and environmental benefits from California’s climate policies and programs. A collaborative effort with the Emmett Institute at the UCLA School of Law and generously supported by Bank of America, this research has been highly influential in advancing California’s aggressive climate programs. However, in order to make this policy research more accessible to the broader public, CLEE launched www.climatepolicysolutions.org, a one-stop shop for all of the recommendations and research from this initiative over the past eight years.

“I really [want] to emphasize how important it is that we make available the kind of resources that you all have developed to the broader public around the world.”

MARY NICHOLS, CHAIR, CALIFORNIA AIR RESOURCES BOARD



SPOTLIGHT



ABOUT THAT OCTOPUS IN THE PARKING GARAGE

– Excerpt from *Miami Herald* Op-Ed by Dan Farber & Rob Verchick

What was an octopus doing in a parking garage? Well, the luxury condos at Miami’s Mirador 100 condominium complex are near the ocean, as is the parking facility and all of its drainage pipes. Those pipes, which feed runoff into the ocean, used to be well above the water’s surface. But sea level is rising, and so the pipes are flooding more during very high tides. No one thought to install an octopus screen on the drain’s opening.

This lost cephalopod is a wake-up call about the need to start confronting the

reality of climate change. This call is nonpartisan. After all, Trump’s famous retreat, Mar-a-Lago, is on the Florida coast, too.

“[California] can join with others – both within the United States and around the world – to show that decarbonization works, and can boost the economy in the process.”

ETHAN ELKIND, writing for the San Francisco Daily Journal



- To meet California’s goal of 1.5 million electric vehicles on the road by 2025, the state will need considerable vehicle charging infrastructure investment and strategies to implement it. Policy recommendations to boost this infrastructure will be discussed in a report to be released early in the year.
- CLEE will release an analysis of how California’s major climate policies and programs have affected the San Joaquin Valley to date, along with projected impacts through 2030. The report will be released through Next 10 and is a collaboration with the Donald Vial Center on Employment in the Green Economy at UC Berkeley.
- CLEE will be working alongside the California Air Resources Board to develop a strategy for sustainable freight in California.

The Wheeler Water Institute at CLEE provides integrative solutions to address California's present and future water challenges

SPOTLIGHT

2016 FOCUS: CREATING EFFECTIVE INSTITUTIONS

Effective governance institutions are essential for sound management of water for human and environmental uses. At the Wheeler Water Institute we recognize how these institutions are stretched by changing patterns of demand for water and by broader environmental change. We provide nuanced policy guidance to ensure a sustainable future for California's most precious resource.

BUILDING NEW INSTITUTIONS

Groundwater is an essential source of water for California but the resource has been largely unregulated and chronically overdrafted. California recently passed the Sustainable Groundwater Management Act (SGMA), which requires the creation of new Groundwater Sustainability Agencies to guide groundwater management. These new agencies are critical to effective implementation of the Act, but SGMA is unclear about how they should be designed and how they should function. Our report **Designing Effective Groundwater Sustainability Agencies: Criteria for Evaluation of Local Governance Options** provides specific guidance for institutional design, and has been widely influential for local governments seeking to understand how to approach their responsibilities under SGMA.

INSTITUTIONS AND INNOVATION

A transition to new paradigms in the urban water sector will be needed to respond to stresses from climate change, population growth, land use change, and evolving societal values. Innovation will be a necessary part of this transition. Our article **Barriers to Innovation in Urban Wastewater Utilities: Attitudes of Managers in California** details an innovation deficit in urban wastewater utilities and highlights key barriers to innovation among wastewater managers. Understanding these barriers and working to overcome them will be crucial for California's long-term water and environmental security.

INSTITUTIONS AND ENVIRONMENTAL ENFORCEMENT

The Clean Water Act's citizen suit provision allows private individuals or citizen groups to address gaps in regulatory enforcement. Sanitation agencies and environmental groups all value environmentally beneficial outcomes, but have had widely divergent opinions on the effectiveness of citizen enforcement. In April, we published a first-of-its kind report analyzing **Citizen Enforcement and Sanitary Sewer Overflows in California**. This report finds that, overall, citizen enforcement correlates with improved performance of California's sanitary sewer collection systems and suggests that stakeholders would benefit from direct dialogue about conflicting perspectives on the topic.

"Mike and his team consistently produce work grounded in quality research, not the rhetoric that fills most of the public policy airwaves. I look forward to their reports for clear, comprehensive, and fair treatment of extraordinarily complex issues."

FELICIA MARCUS, CHAIR, STATE WATER RESOURCES CONTROL BOARD

Michael Kiparsky and Holly Doremus were each featured as experts to watch on California water by Water Deeply.

"Without better data — and the systems to turn raw data into usable information — we can't prepare for the next drought or flood."

MIKE KIPARSKY and **JOSHUA VIERS**, Los Angeles Times, Letter to the Editor

LOOKING
TO
2017

- Early in the year, we will release a report examining the opportunities and potential pitfalls in using groundwater trading to achieve the goals of the Sustainable Groundwater Management Act.
- We continue to address the innovation deficit in urban water with one project evaluating the regulatory barriers to innovation and another evaluating novel institutional mechanisms that may help overcome the perceived risks of innovation.
- We continue to engage in productive dialogue on the creation of a comprehensive database of information on water rights and water use tailored to the demands of a diverse set of decision-makers and stakeholders.
- We are working with stakeholders and the State Water Resources Control Board to examine decision making related to water allocation and develop recommendations for how it can be improved during future droughts.
- We will conduct a critical analysis of a novel mechanism to encourage distributed groundwater recharge, a potentially important but unproven contributor to sustainability.



March 2016 Designing Effective Groundwater Sustainability Agencies: CRITERIA FOR EVALUATION OF LOCAL GOVERNANCE OPTIONS

Michael Kiparsky, David Glick, Neil Green Niles, John O'Connor, Holly Doremus, and Holly Doremus
Wheeler Water Institute | Center for Law, Energy & the Environment
UC Berkeley School of Law



Barriers to Innovation in Urban Wastewater Utilities: Attitudes of Managers in California

Michael Kiparsky, Dr. Barbara H. Thompson, Dr. Christine Rose, David L. Sabel, Dr. Lane Tannen, Dr. Richard H. Fuller

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Abstract In many regions of the world, urban water systems will need to transition into fundamentally different systems to address current stresses and meet anticipated challenges. Urban water systems are part of a broader innovation ecosystem. To assess the innovation deficit in urban water, we conducted a series of interviews with water utility managers and policy makers to identify barriers to innovation. Our findings suggest that the most significant barriers to innovation are: (1) the institutional and regulatory environment, (2) the financial environment, (3) the technical environment, and (4) the human environment. The most significant barriers to innovation are: (1) the institutional and regulatory environment, (2) the financial environment, (3) the technical environment, and (4) the human environment. The most significant barriers to innovation are: (1) the institutional and regulatory environment, (2) the financial environment, (3) the technical environment, and (4) the human environment.



APRIL 2016 Citizen Enforcement and Sanitary Sewer Overflows in California

Neil Green Niles, Luke Shroyer, Michael Kiparsky, and Holly Doremus
Wheeler Water Institute | Center for Law, Energy & the Environment
UC Berkeley School of Law

BerkeleyLaw
Center for Law, Energy & the Environment
UC Berkeley School of Law

The Law of the Sea Institute (LOSI) fosters discussion, debate, and research around key issues in international ocean law and policy



Professor Holly Doremus, LOSI Faculty Director, and Jordan Diamond, LOSI Executive Director

2016 FOCUS: IMPLEMENTATION CHALLENGES

In the summer of 2016, Jordan Diamond and Professor Holly Doremus stepped into leadership roles with the Law of the Sea Institute (LOSI) following the retirement of longtime director Professor Harry Scheiber. They are excited to help facilitate research and discussion that supports transparent, inclusive, and adaptive ocean governance.

IMPLEMENTING VESSEL PROTECTIONS IN ASIA

Shipping is integral to the world's economy, and nearly 40% of seaborne cargo is loaded in Asia. Although the International Maritime Organization (IMO) has adopted a series of conventions to mitigate the impacts of shipping on the marine environment, substantial barriers remain at the regional level. LOSI partnered with the Centre for International Law at the National University of Singapore and the Korea Institute of Ocean Science and Technology to host an international conference focused on the regional implementation of existing IMO conventions to protect the ocean environment in Asia from ships and offshore facilities. The conference participants examined progress in implementing existing obligations and where additional mechanisms may be needed to adequately protect our marine environment.

IMPLEMENTATION CHALLENGES IN LAW OF THE SEA

The current international framework for ocean governance, the UN Convention on the Law of the Sea (UNCLOS), is widely acknowledged as a treaty-making success. However, rapid global changes in public and private legal institutions and in marine and weather conditions are stressing the boundaries of the framework. In late September 2016, LOSI partnered with the Transnational Law Institute at King's College London to convene a two-day discussion amongst expert practitioners and scholars on stress-testing the law of the sea framework and exploring its ability to respond to changing levels of uncertainty.

IMPLEMENTING CALIFORNIA'S COASTAL GOVERNANCE FRAMEWORK

In 2016 we celebrated the 40th anniversary of the California Coastal Act, the key legislation protecting California's iconic coastline. But the California coast arguably faces its greatest challenges yet with a growing population, increasing development pressure, and impacts from climate change. On November 17, Berkeley Law partnered with UC Davis, UCLA, and Stanford to convene experts, practitioners, and stakeholders for a one-day discussion of these challenges. Featuring a keynote from California Natural Resources Agency Secretary John Laird, the discussions explored the history of California coastal management and how to map an agenda for future implementation of the Coastal Act.

LOSI was delighted to welcome as a Distinguished Fellow Clive Schofield, Professor & Director of Research at the Australian National Centre for Ocean Resources and Security at the University of Wollongong

SPOTLIGHT

"LOSI is a light station for an America that seems sometimes to have yielded its leadership role in the international order of the oceans. Building on the legendary scholarship of Stefan Riesenfeld, and later with Judge David Caron as co-director, Harry Scheiber guided the Institute to heights of prominence not seen since its first two decades."

JOHN BRISCOE, BRISCOE IVESTER & BAZEL LLP, LOSI DISTINGUISHED FELLOW



THANKING HARRY N. SCHEIBER

In July 2016, after 14 years at the helm, Professor Harry N. Scheiber stepped away from his director's role with the Law of the Sea Institute. While Harry's leadership at the Institute will be sorely missed, Berkeley Law is committed to continuing the legacy that he and Professor David D. Caron (formerly of Berkeley Law, now of King's College) created.

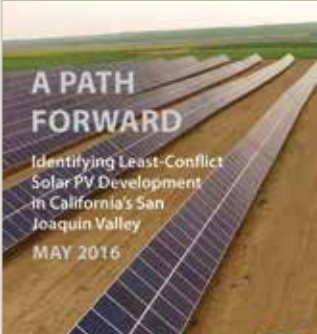
Harry has helped grow ocean studies at Berkeley Law as an inspiring and creative thought leader, generous mentor, and facilitator and convenor. We are deeply grateful for his tireless efforts and are excited to honor and continue the Institute's work.



- We will co-host an international conference in fall 2017 on oceans and climate change to explore strengths and vulnerabilities in efforts to mitigate climate impacts on the ocean, such as ocean acidification, and to adapt to changing conditions, such as rising seas.
- We will release synthesis reports from our symposium on California coastal governance and our 2016 international conference on challenges to implementing marine environmental protection obligations. In addition we will finish editing a collection of articles from our international symposium on stress-testing the law of the sea framework.

From transportation planning to housing development and wind and solar siting, effective and efficient land use is crucial for building a sustainable California

SPOTLIGHT



2016 FOCUS: EXAMINING TRADEOFFS

Advance land use planning for transportation systems, renewable energy development, and even waste management play a key role in the long-term sustainability of our infrastructure and in minimizing ecological degradation. In 2016, our analyses examined how to best consider and account for the broad spectrum of tradeoffs in land use decision-making, fostering dialogue among diverse groups of stakeholders.

MAPPING A PATH FORWARD

Development of large-scale solar photovoltaic (PV) facilities is necessary to achieve California’s goal of meeting half its energy demand from renewable sources by 2030. Building these installations requires a significant amount of land, however, and therefore involves environmental and economic tradeoffs. In **A Path Forward: Identifying Least-Conflict Solar PV Development in California’s San Joaquin Valley**, CLEE, the Conservation Biology Institute, and other partners developed a stakeholder-led process, using innovative digital mapping technology, to identify the most suitable lands in the eight-county San Joaquin Valley region for solar development. The project team convened leaders from the agricultural, conservation, and solar development communities and included representatives of tribes and key agencies. This diverse array of stakeholders helped demarcate potential “least-conflict” lands for solar PV development in the Valley.

EXAMINING POLICY OPTIONS TO PRODUCE ENERGY FROM MUNICIPAL SOLID WASTE

While California sends 30 million tons of solid waste to landfills annually, the energy potential in this waste could be harnessed for biogas and electricity generation while offsetting landfill and other emissions. **Wasting Opportunities: How to Secure Environmental & Clean Energy Benefits from Municipal Solid Waste Energy Recovery** examines California’s current policies on converting solid waste to energy. As waste-to-energy technologies may advance, and as other jurisdictions begin to adopt new technologies, this report suggests ways that California could revisit state policies to safeguard communities from emissions while allowing deployment of proven technologies in ways that further our environmental and energy goals.

“At a generic calculation of 1 megawatt of solar PV production from 5 acres of panels, that means the lands identified could provide 94,000 megawatts of renewable power – greater than all combined in-state generation capacity and enough to power as many as 23 million homes in California with low-cost, clean electricity.”

ETHAN ELKIND AND JIM STRITTHOLT WRITING FOR CAPITOL WEEKLY



Ethan Elkind and the bronze grizzly bear outside the California governor’s office.



- A forthcoming report with Next 10 and UC Berkeley’s Turner Center for Housing Innovation will explore how California can expand its housing supply while also supporting its long-term environmental goals.
- CLEE will also engage in a project on how to balance renewable energy goals while preserving open space and agricultural lands.
- Alongside a range of partners in the academic and private sector, CLEE will pioneer a pilot “EcoBlock” in the Bay Area exhibiting the future of water and energy sustainability.

STUDENT ORGANIZATIONS

BERC@BOALT, the Law School chapter of the Berkeley Energy & Resources Collaborative, continues to connect current law students with campus energy resources and professionals in the energy law space. Last year, BERC@Boalt brought a number of exciting speakers to campus, including California Public Utilities Commissioners Peterman and Randolph, and the Natural Resources Defense Council's Ralph Cavanagh. It also hosted the first ever BERC@Boalt "Energy Law Mixer," a great opportunity for current students to connect with alumni and practicing attorneys, and an unofficial "Nerd Nite," during which graduate and post-doctoral students from departments across campus presented on their research on various energy technologies and policies. BERC@Boalt thanks the Berkeley Center for Law & Technology for continued support of its efforts.

THE BOALT HALL ANIMAL LAW SOCIETY (ALS) is a group of students who believe in a plant-based diet and lifestyle because of the positive impacts on animals, on the environment, on the world's resources, and on human health. As a student chapter of the Animal Legal Defense Fund, the Animal Law Society discusses legal campaigns against institutionalized animal abuse

along with legal battles over issues like ag-gag legislation. Several speakers have visited the group's biweekly vegan lunch meetings, including two legal researchers and a local organizer. ALS encourages the Boalt community to move toward a plant-based lifestyle, one vegan cookie at a time.

BOALT SUSTAINABILITY TEAM (BST) is a collaborative project of student organizations at Berkeley Law that seeks to address the Law School's environmental impact. BST partners with law school and main campus staff to focus on waste management and reduce energy use. BST continues to educate students, staff, faculty, and visitors on ways to properly dispose of waste by creating illustrated guides of the campus waste management system that it distributed throughout the law school campus, in Student Center offices, and on the online room reservation portal. BST organized the second annual Green Week in spring 2016, and is currently in the process of achieving Green Certification for Boalt Hall with UC Berkeley's Office of Sustainability.

ECOLOGY LAW QUARTERLY (ELQ) has served as the hub of environmental scholarship at Berkeley Law since 1971. ELQ provides a forum for preeminent

scholarship on groundbreaking environmental law topics, including renewable energy, environmental justice, and international environmental law. In 2008, ELQ launched Ecology Law Currents, an online companion journal, and in 2015, partnered with several other environmental law journals on the Environmental Law Review Syndicate, publishing student-contributed content in Currents. In 2016, in addition to publishing its four issues and Currents web content, ELQ members participated in the annual tradition of journal trips to both Yosemite Valley and Lake Tahoe. ELQ also continued to host our popular GuacFest parties to celebrate issue publication, providing the student body with good guac, good music, and good times.

THE ENVIRONMENTAL LAW SOCIETY (ELS) raises awareness of emerging environmental issues and advocates for environmental protection. ELS oversees the Environmental Conservation Outreach SLP, which worked with a coalition of environmental groups to write an amicus brief challenging Napa County's refusal to add a ballot initiative to protect the county's oak woodlands. ELS co-sponsored Green Week with the Boalt Sustainability Team and chaired a panel presentation at the 2017 California

Water Law Symposium. Additionally, ELS organized lunch talks with guest speakers on careers in water law and on contemporary water issues along the Jordan River in the Middle East, and hosted a summer jobs panel for 1Ls interested in environmental and energy law. Following the 2016 presidential election, ELS members wrote letters to elected representatives. ELS members also volunteered with local organizations and organized the Admitted Students Weekend hike.

KARUK-BERKELEY COLLABORATIVE (KBC) is a student-led legal clinic that contributes to the Karuk Tribe's ongoing efforts to preserve its natural and cultural resources and resolve other legal issues. In spring 2016 KBC members travelled to Orleans, California for their annual client visit. In addition to conducting valuable meetings and fostering new partnerships with tribal employees and other members of the tribe, the Cultural Property and Natural Resource teams had the honor of presenting their work at the monthly Karuk Tribal Council Meeting. In the fall, KBC welcomed a fantastic new slate of 1L and LLM members and began working hard on new natural and cultural resource projects for the Tribe.



STUDENTS FOR ECONOMIC AND ENVIRONMENTAL JUSTICE (SEEJ) is an affinity group of law students interested in economic and environmental justice issues and advocacy. Committed to the equitable distribution of environmental and economic benefits and burdens, SEEJ investigates the strategic use of legal tools to strengthen grassroots organizing and build community power. In the fall of 2016, SEEJ helped organize a panel on Native American organizing and the No DAPL campaign. The panel included Hartman Deetz of the Mashpee Wampanoag Tribe, Chairman Gemmill of the Pit River Tribe, Morning Star Gali of the Ajumawi Band of the Pit River Tribe, and attorney, Darci Houck. The panelists led a discussion focusing on the legal ramifications of the confrontations at Standing Rock and shared their experiences in Native advocacy.

ENVIRONMENTAL & ENERGY LAW CERTIFICATES


Berkeley Law offers two certificates of specialization in the fields of environmental and energy law. The certificate programs ensure that students develop a broad background in fundamental areas of law while receiving advanced training in environmental and/or energy law. In 2016, we were pleased to have 26 students excel in our programs and earn certificates in Environmental Law and in Energy and Clean Technology Law.




HAYLEY CARPENTER, ANDY COGHLAN, FERNANDA CORREA, ERIC DEBELLIS, THOMAS DELEHANTY, NIMIT DHIR (NOT PICTURED), LOUISE DYBLE, DANIELA SOLIS NAVARRO, NNANKE ENO WILLIAMS, TIM HORGAN-KOBELSKI, SERGIO HUERTA PATONI, JENNIFER IVERS, RENA KAKON, SABIRA KHAN, JOHN MAHER, NEELAM MOHAMMED, CHRISTOPHER MORTWEET, HAYLEY OVESON, SHAMPA PANDA, GONZALO PEREZ, STEPHANIE POSTAL, ANDRES VEGA SANCHEZ, NIRAN SOMASUNDARAM, ARPITHA UPENDRA KODIVERI, KRISHNA VISVANATHAN (NOT PICTURED), LAURA WEINGARDEN

OUR TEAM


Faculty + Staff




HOLLY DOREMUS '91
CO-FACULTY DIRECTOR; JAMES H. HOUSE AND HIRAM H. HURD
PROFESSOR OF ENVIRONMENTAL REGULATION
Holly is a leading scholar in environmental law and natural resources law. Holly's strong background in life sciences informs her work and her commitment to interdisciplinary teaching.



DAN FARBER
CO-FACULTY DIRECTOR; SHO SATO PROFESSOR OF LAW
Dan is a leading scholar in environmental law, constitutional law, and legislation. He is a pioneer in disaster law, an emerging field that examines the legal issues and risks surrounding catastrophes.




JORDAN DIAMOND '08
EXECUTIVE DIRECTOR
Jordan oversees the Center's research portfolio and ensures environmental and energy governance is transparent, accountable, and inclusive. She specializes in ocean and coastal law and policy.




ETHAN ELKIND
DIRECTOR, CLIMATE PROGRAM
Ethan's research is focused at the crossroads of climate change and business, with an emphasis on transportation and land use law. He produces practical policy solutions to achieve our climate goals.


PROGRAM COORDINATOR
Luke manages CLEE's logistics, communications, and events ensuring that our team is able to dedicate their time to research. He also offers research assistance to CLEE's projects when possible.




JOHN BOWIE
RESEARCH FELLOW
John's work focuses on innovative business and finance models in renewable energy and energy efficiency. His current research also includes applying policy lessons from the energy sector to California water issues.




NELL GREEN NYLEN '12
SENIOR RESEARCH FELLOW, WHEELER WATER INSTITUTE
With a doctorate in earth sciences and a law degree from Boalt, Nell engages law, science, and policy in order to identify interdisciplinary solutions to pressing California water issues.




NARAYAN SUBRAMANIAN
ASSOCIATE POLICY ANALYST
Narayan brings experience in engineering, international relations, and the study of small island issues to his work on domestic and international climate law and policy.



BRITTON SCHWARTZ
JOINT FELLOW WITH THE CLINIC AND CLEE
Britton brings years of experience in water justice issues to her work, leading student projects within the Environmental Law Clinic and working with CLEE on ongoing research initiatives.




LISA TUCKER
PRO BONO ATTORNEY
Lisa Tucker is engaged in research on the health of our oceans and fisheries. Working on a pro bono basis, she applies her experience from the business sector to policy hurdles such as public access to data.




CHRISTOPHER WILLIAMS '10
RESEARCH FELLOW, WHEELER WATER INSTITUTE
Christopher's research focuses on policy and financing strategies to overcome pressing hydrological challenges, including climate change adaptation and water treatment technology adoption.


Students




HELEN AKI '18
GRADUATE STUDENT RESEARCHER (FALL 2016-SPRING 2017)
Helen took the reins as Student Liaison in fall 2016, and works closely with CLEE leadership to maximize communication amongst the E&E community. This includes our weekly newsletter for current students.




EMMA KENNEDY '17
GRADUATE STUDENT RESEARCHER (SPRING 2016)
In spring 2016, Emma worked with Jordan and Dan on research related to the use of emerging technology in natural resources governance. Her work focused on how our legal systems are adapting to new modes of information collection and analysis.




MAE MANUPIPATPONG '17
GRADUATE STUDENT RESEARCHER (SPRING 2016-SPRING 2017)
Mae worked with Jordan and Holly on coastal governance research in both spring and fall 2016, focusing first on managed retreat options for California local governments and then on statewide coastal governance challenges. In spring 2017, she will assist with research on international climate policy.




ANDREW MILLER '18
GRADUATE STUDENT RESEARCHER (SPRING 2016-SPRING 2017)
Andrew worked with Jordan and Holly on coastal governance and international ocean policy, first on managed retreat options for California local governments and then on regional implementation of marine environmental protection obligations in Asia.



SHAMPA PANDA '16
GRADUATE STUDENT RESEARCHER (SPRING 2016)
Shampa served as the Student Liaison for CLEE from 2014-2016, writing a weekly newsletter for the Berkeley Law community summarizing current E&E opportunities and activities.



BO PETERSON '18
GRADUATE STUDENT RESEARCHER (FALL 2016-SPRING 2017)
Bo worked with Jordan and Holly on law of the sea research in fall 2016, focusing on stress-testing the current law of the sea framework. In spring 2017, he will assist with editing a forthcoming book based on the proceedings of a London conference.



KRISHNA VISVANATHAN LL.M. '16
GRADUATE STUDENT RESEARCHER (SPRING 2016)
In spring 2016, Krishna worked with Jordan and Dan on research related to the use of emerging technology in natural resources governance. His work focused on security and privacy concerns in new data systems.

UNDERGRADUATE STUDENT ASSISTANT (FALL 2016)
Jaclyn assisted with a variety of Center efforts, including communications, database management, and event planning and coordination.

* ENERGY & RESOURCES GROUP, UC BERKELEY
+ UC BERKELEY UNDERGRADUATE

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FINANCE

CLEE is primarily funded through grants and contracts that support our projects and initiatives. But funding from grants and contracts is strictly limited to specified research. We depend on donations and gifts to support everything else we do at CLEE, such as:

- **SUPPORT E&E STUDENTS** — Gifts and endowments enable us to host events, coordinate programs, and administer our Certificate programs.
- **RAPIDLY RESPOND** — Donations enable us to respond quickly and decisively to unanticipated law and policy challenges.
- **CONNECT & COLLABORATE** — Gifts provide critical support for our efforts to support a network of environmental and energy governance experts.



THANK YOU FOR YOUR SUPPORT

We would not exist absent the generosity of our community. As a self-supported research center, your contributions have made it possible for us to continue our work. Together we are developing lasting solutions to today's policy challenges and supporting tomorrow's environmental and energy leaders.

Please reach out any time to learn more about what we do. We would love to hear from you.

clee@law.berkeley.edu

Big or small, every gift helps us continue our work to ensure the integrity of our environmental and energy laws and policies and realize a healthy future for the planet. If you share these goals, please consider supporting our work by visiting **www.law.berkeley.edu/clee-support**.

FOR MORE INFORMATION



cle.e.law.berkeley.edu

