

ES NEWS

Environmental Studies Program

University of California, Santa Barbara

Fall 2017



Resistance and Climate Injustice in the Maldives

"The Maldives—a tiny island state without a single mountain or hill—may seem to be a world away. But what has been taking place there is a fight for the future, for everyone's future, a fight waged within a war that we are all living through. It's a fight for democracy, in the first instance, an old fight like countless others where a population stands up against lies, bullying, greed, power, and history. It's also a fight for human rights against a backdrop of torture and repression. And perhaps most urgently, it's a quiet fight on a vast front that concerns the future of life as we know it: humanity's daunting, dogged struggle to face up to the ultimate existential threat of climate change."

-Summer Gray, Assistant Professor

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Environmental Studies would like to thank the program's students, faculty, staff, alumni and supporters who contributed content and suggestions for this year's publication of *ES News*.

Chair: Carla D'Antonio
Editing and Design: Martin Rodriguez
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CHAIR'S MESSAGE

What an unusual year it has been for ES (and the USA)! Our program has reached many milestones – some of which present new, but, exciting challenges for us. For example, 1000 ES majors? Really? Yes really! So how do we maintain the quality of our course offerings when we are pushing almost 1000 majors? Dean Pierre Wiltzius has been extremely supportive and has helped us by funding lecturers as well as some new positions. We are thrilled at the interest in the environment shown by the high enrollment and will continue to strive to give each students a transformational experience. Our fantastic committed staff and faculty continue to strive to deliver the quality experience that has helped our reputation of excellence to flourish for so many years.

Other milestones—Dr. Mel Manalis retired after 44 years of teaching in Environmental Studies. What an amazing man and amazing level of commitment... and how very lucky we have been to have had him here for so long! Be sure to read the tribute to him in the newsletter and see the web site Eric has set up on Facebook (no Russians involved!).

Another milestone, we hired two new faculty members and since both are women, we now have 5 women faculty out of 12—a high for the program. Debra Perrone, a civil engineer, joins us in the area of water policy, supply and distribution. Summer Gray, a sociologist, anthropologist and filmmaker, joins us in the area of human interactions with climate change, or more generally environment, society and technology. With the hiring of Debra and Summer, we have reached the largest size for our ES faculty (a mere 9.2 FTE) in the history of our program—another milestone.

As chair, I spent the year helping to keep the ship on course including initiating planning for our 50th anniversary. The 50th year will be a very exciting period of time for ES and the campus. The year before our 50th, the campus will also celebrate the 50th anniversary of the oil spill, which happened in 1969. So look for announcements, get yourself on Friend's of Environmental Studies listserv, and participate in as many events as you can! If you want to help with planning for the 50th, send us a note and also see our "Give" notice in the newsletter.

Research by our faculty continues to thrive and many engage undergraduates in their research. Faculty traveled to Hawaii, Alaska, Asia, Europe, South America and all around the US for workshops, research presentations and the research itself. We also funded student participation in research through donor funds and enhancement awards.

Enjoy our newsletter, keep in touch and remember that education is the foundation for a better world--so from the frontlines ...thank you for your continued interest in and support for our program.



Carla D'Antonio

ES Welcomes Two New Faculty



SUMMER GRAY

Dr. Summer Gray comes to our department from the University of California, Santa Cruz, where she was a UC President's Postdoctoral Fellow in the Department of Anthropology. She completed her Ph.D. in Sociology at UCSB and has collaborated with scholars from across the humanities and

social sciences that share a determination to expand their respective fields in order to better understand contemporary environmental and social problems.

Summer's research centers on landscapes where sand mining and adaptive infrastructures are entangled in colonial histories and struggles for social and environmental justice. Her current project connects practices of shoreline stabilization with the emerging and uneven geographies of sea change in low-lying countries and island nations. This research has stretched from Guyana to the Netherlands and from the Maldives to Japan.

Summer is excited to develop new courses for ES majors who are interested in the social and cultural dimensions of changing landscapes. This winter, she will introduce a new course that explores the unanticipated challenges of shaping and maintaining infrastructure in the context of rapid environmental change (ENV S 193SE). In the spring, she will collaborate with other UC instructors to teach a multi-campus undergraduate hybrid course ("Bending the Curve: Climate Change Solutions") designed as part of the University of California's Carbon Neutrality Initiative.

As an affiliate of the UC President's Postdoctoral Fellowship Program, Summer strives to promote diversity in higher education and environmental studies in particular. She aims to foster new perspectives with which to grasp the rich and complex interactions of competing systems of knowledge and lived experiences around issues of environmental degradation and desires for sustainable development.



DEBRA PERRONE

The Environmental Studies Program also welcomes Dr. Debra Perrone, our new Assistant Professor of Water Policy. This position was highly anticipated after Bob Wilkinson's retirement in 2014! Debra comes to UCSB from Stanford University, where she was a postdoctoral

research scholar in the Department of Civil and Environmental Engineering and the Woods Institute for the Environment.

Debra completed her Ph.D. in Environmental Engineering at Vanderbilt University in 2014; during her tenure, she was awarded fellowships from the Environmental Protection Agency, International Institute for Applied Systems Analysis, and National Science Foundation.

Debra's research is motivated by the water-scarcity challenges and tradeoffs facing society; she integrates water science and engineering optimization with regulatory information to identify legal, social, and political interventions successful in managing our water resources. Debra's research has been featured in the popular press, including NPR and USA Today.

This spring, Debra will teach an introductory course (ENV S 193DP) on water supply, demand, and management. The course will integrate knowledge from multiple disciplines to inform the management of water resources in the face of increasing physical and social pressures. The course places water into context with food and energy security, climate variability, law, and policy, and it is based off of a textbook, *21st Century Water Resources: Science and Society*, that Dr. Perrone is co-authoring.

Debra is excited to join the ES team and looks forward to working with students and helping develop new programs that focus on applying in-class skills to real-world problems.

STAFF TRANSITIONS

RA THEA

After a great year with ES, Ra Thea has departed from our department. ES will miss her bubbly personality and wishes her the best of luck in her next career-step!



CAMI HELMUTH

ES would like to give a gracious "thank you" to Cami for coming out of retirement to serve as our interim Business Officer. ES is happy to send Cami off once more to spend time with her infant granddaughter.



ALEX GARCIA

Alex comes to us as our new Business Officer/Program Manager. He is excited to work with staff and faculty in pursuing ES's mission in helping students succeed. Welcome Alex!



Humans, Nonhumans and Justice

Dehlsen Chair, Dr. David Pellow publishes book exploring the connections between humans and ecosystems.

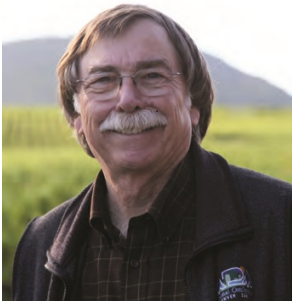
Human societies have always been deeply interconnected with their ecosystems. Yet today, those relationships have greater tensions and harm than ever before. In many cases, these tensions and harms affect the most marginalized groups across the globe. In his new book, *What is Critical Environmental Justice?*, David Pellow examines these relationships and introduces a new framework for making environmental justice activism and scholarship more inclusive. He applies this framework to three topics not usually associated with environmental justice: the Black Lives Matter movement, the U.S. prison system and the Israel/Palestine conflict.

In each of these topics, he reveals the innate linkage between social violence and ecological violence. In addition, he argues that the theories and practices surrounding environmental justice need to expand beyond just human beings. In his words: “The language we use sometimes masks and other times makes visible the fact that many people think it’s perfectly fine to have open season on certain beings but not on others.” The Black Lives Matter movement protests, for example, police are associated with shooting black people “like dogs.” In this case, the Black Lives Matter movement not only highlights the problems of state-sanctioned police violence, but also suggests the permissibility of discrimination and slaughter of nonhumans.



Reloading and Planning Ahead

ES Senior Lecturer Paul Wack receives Impact Award from American Planning Association Central Coast Section.



Paul Wack

ES Senior Lecturer Paul Wack received an Impact Award from the Central Coast Section of the American Planning Association, California (APACA) on April 29, 2017. The Impact Award was awarded to Paul for his “dedication and commitment to the planning profession as a professor, colleague, professional, mentor, volunteer, contributor, and friend.” Paul began his career in the 1970s in Ventura County as a planning assistant and soon went on to receive an M.A. in urban geography at CSU Northridge and an M.P.A. from USC. Paul has taught and helped develop the program’s courses in environmental planning (ENV S 135A & 135B).

In the future, this new award will be known as the “Paul Wack Impact Award” and will be given to recipients, as warranted, that have demonstrated an extraordinary impact to the APA Central Coast Section. During his retirement party (or his “reloading” party as Paul prefers) with the APACA, he insisted that the event marked the next chapter in his life. Paul will teach ENV S 135A this winter quarter. The Environmental Studies Program sends him a huge congratulation and thank you!

Restoring UCSB

ES helps spearhead one of California’s largest coastal restoration projects.

The North Campus Open Space Restoration Project is currently restoring the upper arms of Devereux. Environmental Studies Program faculty, including ES Chair Carla D’Antonio and affiliated researcher Lisa Stratton, ES Alumni such as Carla Frisk, formerly with the Trust for Public Lands, and dozens of ES students serving as interns and volunteers have been instrumental in making this project a success. This project provides the community with access to an expanse of coastal open space that extends 2.25 miles along the Ellwood-Devereux coast. Acquisition of the property connects several existing preserved properties, including UCSB’s South Parcel, Coal Oil Point, as well as the Goleta’s Sperling Preserve at Ellwood Mesa.

The site will ultimately feature natural open space, trails, and boardwalks for public access and passive recreation. It will also be used for teaching, research, and community outreach. Restoration and preservation of wetlands and other habitat along Devereux Creek will also be a primary focus for the property. UCSB’s CCBER has been involved in preliminary research that will be used in the preparation of a restoration plan for the land, to provide guidance in such things as local plants, soil types, and habitat creation.



Chancellor Yang and ES Chair, Carla D’Antonio

Mel Manalis Retires

After more than 45 years of dedicated service and teaching in the Environmental Studies Program, Dr. Mel Manalis has retired. With his background in physics, Mel's research interests surround the development of quantifiable sustainability measures and renewable energy.

His research on wind energy and collaboration with Zond Wind Power led to the creation of Environmental Studies' first endowed chair, The Dehlsen Chair. Most recently, Mel has put in a considerable effort in the development of the Richard Whited Chair in Interdisciplinary Science with the Physics department. Mel has taught over 6,000 Environmental Studies majors through a variety of energy and non-energy related courses. In addition to developing Environmental Studies' pioneer course on *Energy and the Environment*, and a course on *Renewable Energy*, Dr. Manalis is credited with creating the courses *Industrial Ecology*, and *Quantitative Thinking*.

During the 1980's, Mel led a seminal delegation of wind energy experts to advise the Chinese government on how to initialize a large-scale wind energy effort. This project has become



the foundation of China's rapid advancement in wind power development. In addition, Mel conducted the first wind energy study of Vandenberg Air Force Base in Lompoc, California and the nascent study of solar energy applications for the California Energy Commission following the 1973 oil embargo. Mel currently serves as a member of the Institute for Energy Efficiency's Economics and Policy Solutions Group.

Aside from a great career as a research physicist, Mel has had lasting impacts on many students over the years. Over the years, students have said Mel inspired them to continue pursuing education in energy and attribute their careers their careers in the environment and energy to him.

Mel will continue working as a research scientist with the Environmental Studies Program upon his retirement. In recognition of his service to the Environmental Studies Program and the environmental community, he was presented the Environmental Studies Program's 2017 Outstanding Community Service Award at this year's Commencement Reception.

Tributes to Mel Manalis

In honor of Mel, the Environmental Studies Program has dedicated a webpage to help recognize Mel's decades of accomplishments and impact. Below are a few tributes and comments about Mel from current and former students and colleagues.

"I became an ES major because of my passion for sustainable energy. Mel was my favorite professor and inspired me to think in new ways and challenged me to really think about the physics and different aspects of renewable energy."

-Kristina McHugh '14

"As a staff member at UCSB working on utility management and energy infrastructure, I consider it an honor to have been invited to come and present to his classes on the applied energy efficiency and renewable energy work happening at the campus."

-Jordan Sager, Campus Energy Manager

"Thank you for being an inspiration and for introducing renewable energy and climate change issues to me. I have taken that through my career, and now lead Salt Lake City's Public Utilities Department, charged with providing water, sewer, storm water, and street lighting services for Salt Lake City and the Wasatch Front in Utah. Your teaching instilled in me an ethic and priority to make sure we carry out this public work in a sustainable fashion."

-Laura (McIndoe) Briefer '93

"When I started TAing for Mel, I was immediately struck by his genuine interest in his students. We spent hours each week talking about energy, entropy and life. Mel not only listened to my ideas with eager curiosity... he created opportunities for me to grow into my current profession of an instructional designer."

-Lisa Berry, Senior Instructional Consultant

Mel was the best of the best in terms of inspiring his students. After taking his Energy and the Environment class, I switched to the B.S. so I could better understand the science behind environmental issues. I'm now a high school Chemistry, Biology, and Physics teacher and I credit Dr. Manalis for sparking my love of these subjects.

-Jamie (Ryan) Meisinger '11

To view the full list of comments, please visit <http://www.es.ucsb.edu/news/manalis>
or to submit a comment, please visit <http://www.es.ucsb.edu/forms/manalis>.

Water on the Decline

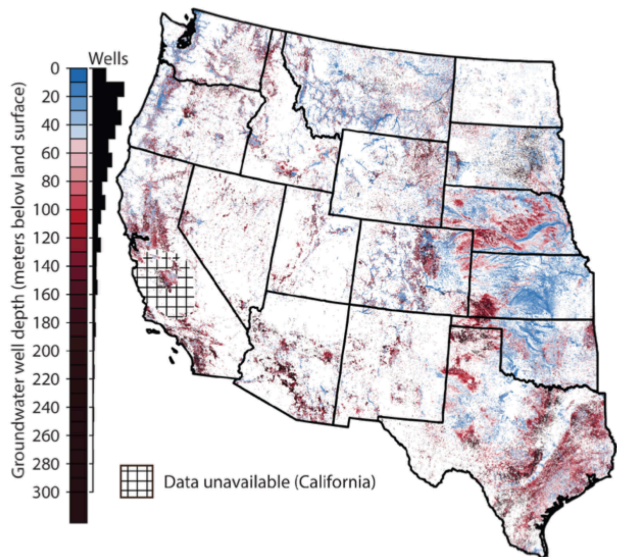
ES Assistant Professor Debra Perrone maps groundwater wells and finds that nearly one in 30 wells are going dry in the West.

In a recent article published in the journal *Environmental Research Letters*, ES Assistant Professor, Debra Perrone sheds light on declining underground water supplies. Perrone, and co-author Scott Jasechko, analyzed groundwater well records for 17 states in

the western United States. Their study was the first time such data was compiled and analyzed across state boundaries in nearly three decades. Using the data for nearly 2 million wells constructed between 1950 and 2015 they estimated the percentage of wells that ran dry, and found that one out of every 30 wells was dry between 2013 and 2015.

With the groundwater data, they estimated the water table in each area and compared those water levels to the depths of the wells. Results support evidence that wells used for domestic purposes are more susceptible to drying than wells used for agriculture purposes because these tend to be shallower, although not in all areas. Outside of California, the depths of wells for domestic use and agricultural use were similar. Perrone and Jasechko also found that dry wells were concentrated in rural areas with high agricultural productivity like parts in the California Central Valley and the High Plains.

Rural areas take the most impact from groundwater depletion as many of these communities are isolated from urban infrastructure and rely heavily on groundwater. Nevertheless, their findings suggest that declining groundwater levels threaten drinking water availability and agricultural productivity alike. These findings are crucial in developing more groundwater management efforts particularly in California where the multi-year drought that began in 2012 was the harshest in modern times.



Map showing the depth of about 2 million groundwater wells. The blue shaded area indicates wells with depths shallower than 50 meters, while the red indicates wells deeper than 50 meters.

Resistance and Climate Injustice in the Maldives

ES Assistant Professor Summer Gray links the struggles with climate injustice with the struggle for democracy in the Maldives.

Climate change is having a profound impact on people across the globe. Sea levels are rising and seasons are becoming more variable and extreme. In an article published in *Berkeley Journal of Sociology*, ES Assistant Professor, Summer Gray and Sociology Professor, John Foran explore the intersections of social life and the politics of climate change in the Maldives.

Following the election of Mohamed Nasheed, the Maldives declared the goal of becoming the world's first carbon-neutral country. However, during the UN climate summit in 2009, those goals received little attention. Instead, the Maldivian president was faced with the reality that climate negotiations favor powerful and polluting countries like the United States. In 2012, Nasheed "resigned" as president following a coup that generated public outcry against the commission that declared the coup legal.

Within days Nasheed's struggles for climate justice had been dismantled. In contrast to

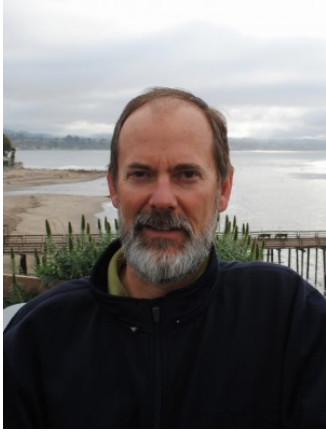
the former president, the new government pledged to create jobs by pursuing oil. In addition, citizens face religious persecution, a threat to their human rights. The violence ensued in the Maldives is not only brought up by rising sea levels and a harsh government, but also the politics associated with the climate change debate.



Protesters in the Maldives (Photo Credit: Dying Regime).

36th Annual Manley Memorial Lecture

Former Coastal Commission Executive Director, Charles Lester was this year's Annual Manley Lecturer.



Charles Lester

Dr. Charles Lester delivered an inspiring and informative lecture on California coastal policy and development and the challenges of climate change. He has been working in the field of ocean and coastal management for more than 25 years. He is currently at the Institute of Marine Sciences at UC Santa Cruz, researching and writing about sea level rise, coastal resilience, and other aspects of California coastal law and policy. Charles previously worked for the California Coastal Commission, including serving as the fourth executive director of the agency from 2011 to 2016. He also served as the Commission's senior deputy director, a district director and manager in the agency's Santa Cruz office, a coastal program analyst, and a student intern during graduate school.

Before moving to Santa Cruz, Charles was Assistant Professor of political science at the University of Colorado,

Boulder, where he taught environmental law and policy, with a focus on public lands governance and coastal zone management. He also worked with NOAA's General Counsel for Ocean Services.

In his talk, Charles discussed the tough choices facing the commission in the years to come. What will agencies and communities hold to higher importance: protecting private property or protecting public places? Back in 2014, Lester was a key player in the approval for UCSB's Long Range Development Plan. Environmental stewardship and sustainability were major components of the plan, which designated 590 acres of university property as protected open space. The Goleta Slough, east and west Storke wetlands and the Devereux Slough are including the Long Range Development Plan.

"For decades, Dr. Lester has been an unsung hero for the California coast, serving the public interest as staff with the California Coastal Commission, with his last four and a half years as Executive Director," said Linda Krop, EDC's longtime Chief Counsel. "Throughout his tenure at the Commission, Dr. Lester was dedicated to ensuring protection of public access for all, preservation of open spaces and strong implementation of the Coastal Act, arguably the most important coastal protection law in the nation."

ES Film Screening

ES co-sponsors film screening of *SILA and the Gatekeepers of the Arctic*, directed by Corina Gamma.

On May 31, 2017, ES and Film and Media Studies co-sponsored a film screening of *SILA and the Gatekeepers of the Arctic*. The documentary film examines the impact of global warming on a once-thriving culture now struggling to survive on our world's northernmost frontier. The Inuit find their traditional way of life quickly slipping away along with the melting of the Arctic ice. Situated above the Arctic Circle in Greenland, Inuit subsistence hunters and a team of polar scientists bear witness to the transforming environment. As international researchers on Greenland's Inland Ice Cap track the effects and far-reaching consequences of the warming Arctic, these drastic changes in weather patterns are also spelling an end to the Inuit's centuries-old way of life.

With a close-up view into these communities, the film puts human faces on a highly politicized issue. Students in ENV S 193PR taught by ES Lecturer, Julie Maldonado, met with director, Corina Gamma. With her work, Corina merges documentation and conceptual art, often exploring the relationships between people and their environment. She began her education in Fine Art in Switzerland. After settling in Southern California, she continued her studies at the University of California and completed with a Masters Degree in Fine Arts from the Claremont Graduate University. Throughout her life, Corina has been drawn to extreme places, whether the fringes of an urban environment or geographically far, uninhabitable places.



Corina Gamma

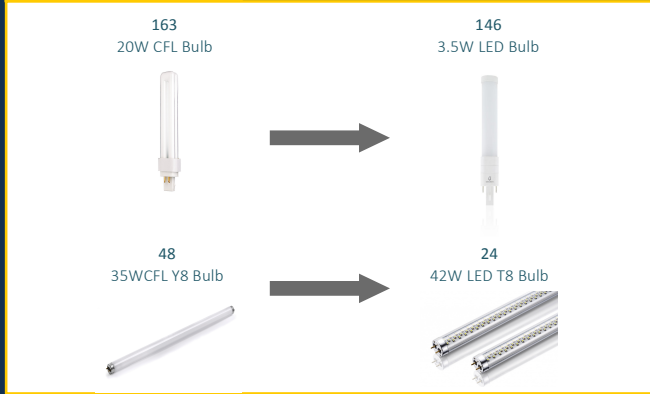
Environmental Studies Gets Greener

ES graduate, Kenny Webb (Class of 2017) and Bren Hall Building Manager, Sage Davis retrofit lighting fixtures on ES floor.

Introduction

Installing energy efficient lighting technology is a feasible way to reduce energy consumption, energy costs, and greenhouse gas emissions (GHGEs). Bren Hall is a double platinum LEED (Leadership in Energy and Environmental Design) lab building that was built in 2002; as a result, the lighting technology isn't as energy efficient as it should be. The Green Initiative Fund (TGIF) and UCSB Facilities Management funded Bren Hall's lighting retrofit, which replaced 211 compact fluorescent (CFL) bulbs with 170 light-emitting diode (LED) bulbs in the corridors and restrooms in the fourth floor lab wing. The new LED lighting system will reduce energy consumption, energy costs, and GHGEs by two-thirds.

The Bulbs



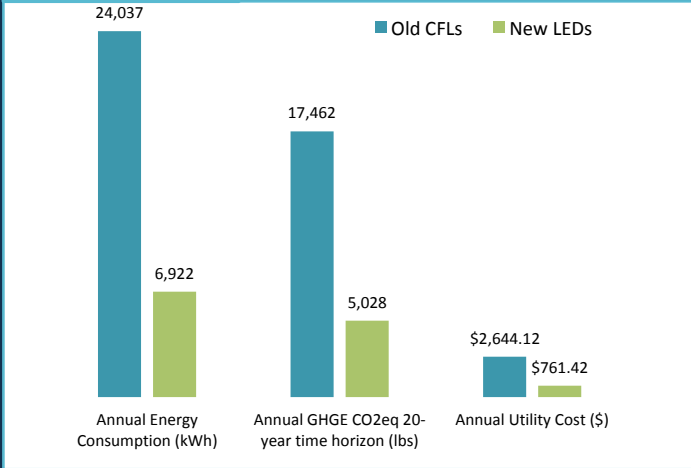
Payback Period

Total cost of installation = \$3,025.00
Total cost of materials = \$4,756.00
Utility cost reduction/year = \$1,882.70

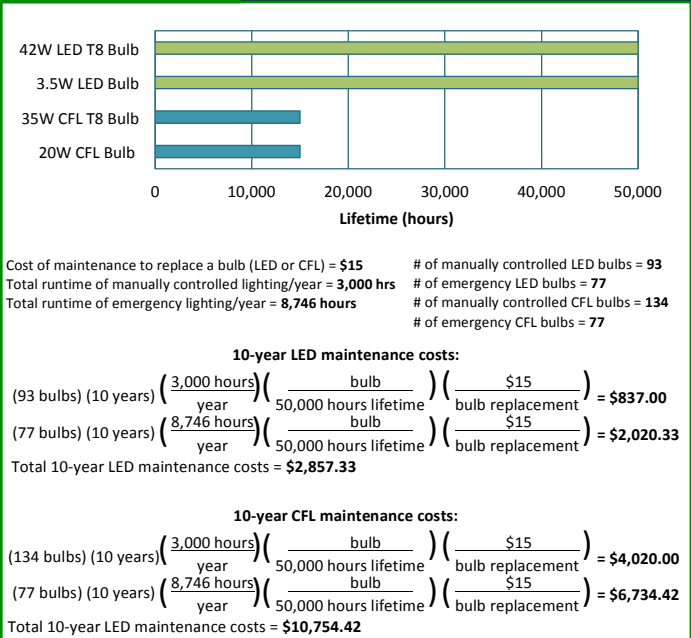
$$\frac{(\text{total cost of installation}) + (\text{total cost of materials})}{\left(\frac{\text{utility cost reduction}}{\text{year}}\right)} = \text{payback period}$$

$$\frac{(\$3,025.00) + (\$4,756.00)}{\left(\frac{\$1,882.70}{\text{year}}\right)} = 4.13 \text{ years}$$

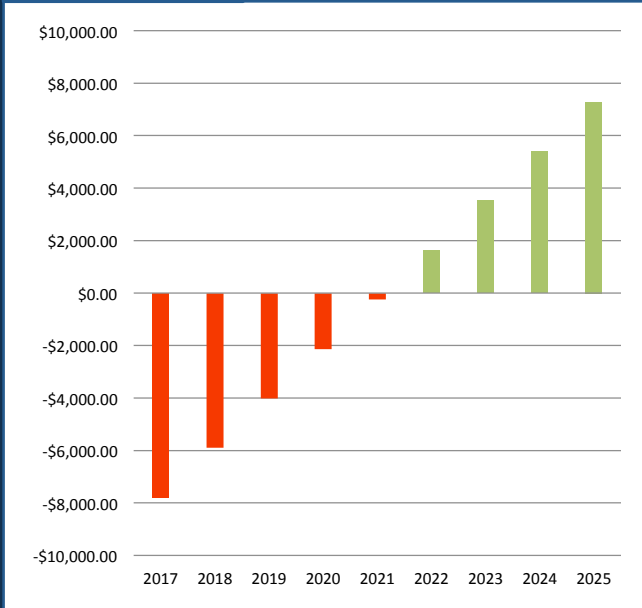
Annual Reductions



Lifetime Comparison



Present Value of Project



The Team



KENNY WEBB

Kenny Webb graduated this past June with a B.S. in Environmental Studies. Kenny participated in Environmental Studies' LEED course (ENV S 194GB) during the 2015-2016 academic year. Having an interest in sustainable energy and energy reductions, he approached Sage Davis about a proposal for an LED lighting project funded through TGIF. This past year, Kenny also served as the LEED course TA. He plans to develop a career in the renewable energy sector.



SAGE DAVIS

Sage Davis is the building engineer for Bren Hall and the Micro-Environmental Imaging and Analysis Facility Manager for Bren Professor Patricia Holden. He is a Santa Barbara native with a long history of environmental proactivity. Previously, he worked for the CEC during their initial development of the Santa Barbara City curbside recycling program. Sage was monumental in advising ES graduate Kenny Webb for this LED lighting retrofit project.

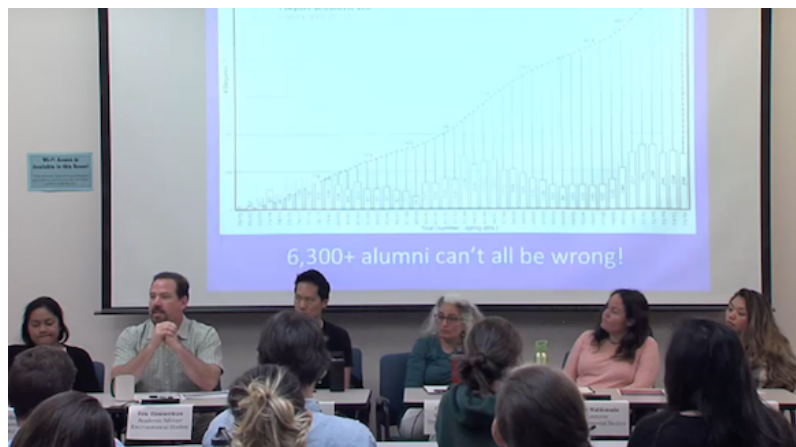
Environmental Studies Hosts Two Forums

In light of the country's presidential election results earlier this year, the Environmental Studies Program and the Global Environmental Justice Project co-sponsored two forum discussions in the spring to address student and community concerns.

Addressing the Challenges of the New Political Landscape

Following concerns and questions from students regarding the future of U.S. climate policy, the Environmental Studies Program and the Global Environmental Justice Project co-hosted the first of two forums to address the upcoming challenges. ES Lecturer, Celia Alario moderated a panel consisting of: ES students, Jackie Diaz and Michelle Sevilla, ES Lecturer Julie Maldonado, ES Chair Carla D'Antonio, Global Studies Professor Jia-Ching Chen, and ES Advisor, Eric Zimmerman.

Each panelist spoke to different topics such as public land lost, environmental hazardous in communities, and, of course, changes in climate change policy. The role of the Environmental Studies Program and other higher education environmental programs is important now, more than ever. It stresses the necessity in finding ways to reach out across the divide to challenge these



Panelists answer audience's questions during the forum.

issues while still creating space for meaningful and open conversations. To view a recording of the forum, please visit:

<http://www.es.ucsb.edu/news/event/491>.

Standing up For Science: Resistance, Persistence, Inspiration and Innovation in the New Political Landscape

Environmental Studies and the Global Environmental Justice Project hosted a second forum featuring Deborah Moore Western States Senior Campaign Manager at the Union of Concerned Scientists. ES student, Sebastianne Kent moderated the



Deborah Moore (left) and Sebastianne Kent (right) during the second forum.

forum. Moore says having conversations about climate issues and climate change are a good way to begin. Public opinion about climate change is influential, but the conversations with one another can bring about change as well. While choices and change on the individual-level are key, we should not pull away from the bigger picture of system change.

Moore emphasized the importance of thinking in systems in regards to climate issues. "We already have the technology and know-how to solve these problems, but we don't have the political will," says Moore. "Partly why is the fossil fuel industry, who have an inordinate impact on our system when you look at lobbying and the campaign they waged over decades."

To view a recording of the forum, please visit:

<http://www.es.ucsb.edu/news/event/496>.

Cases of Prison Ecology

Student researchers release publication of the injustices surrounding prisoners, nearby communities and ecosystems.



Prison ecology team (from left to right): David Pellow, Berenise Alfaro, Rachel Shen, Shannon McAlpine, and Michaela Anastasia Austin.

Not pictured: Michelle Le, Catherine Lee, Akari Roudebush, and Unique Vance

In a project that began last year, David Pellow and a group of ES students gathered data on the impacts of the U.S. prison system on environmental and public health. Recently, the team published a collection of case studies across the U.S. that investigate the links between prisons, jails and environmental justice concerns. From prison labor to targeted chemical abuse, these case studies highlight the work surrounding the Prison Ecology Project.

The case studies presented explore environmental injustices not only in recent events, but also throughout modern U.S. history. For instance, third year ES major Shannon McAlpine investigated the conditions inside the Japanese American concentration camps during World War II. "The poor conditions and rhetoric brought upon Japanese Americans during this time seems to strongly resemble the conditions and rhetoric prisoners in our jails face today." Prisons are crowded, unsanitary and many prisoners face negligence from jail authorities.

In another case study, third year ES/Sociology double major, Michaela Anastasia Austin discusses environmental racism associated with the Lorton Prison Complex. Throughout its history, Lorton has been subjected to environmental degradation, which in effect marginalizes the nearby communities and prisoners. These groups are left disproportionately endangered by the environmental hazards.

All case studies, published under one piece, *Exposing Deliberate Indifference: The Struggle for Social and Environmental Justice in America's Prisons, Jails and Concentration Camps*, can be viewed by visiting <http://www.es.ucsb.edu/gejp/publications>.

LEED by Example

Led by students in ENV S 194GB, Bren Hall receives Triple Platinum LEED Certification.

Students in ENV S 194GB (LEED Living Lab) got hands on learning experience on achieving LEED certification. The collaborative efforts of the students in this course led Bren Hall to receive another LEED certification, making it the first building in the country to achieve the highest level of LEED certification three times.



Solar panels on Bren roof (Photo Credit: Jonas Krant).

LEED (Leadership in Energy and Environmental Design) bears the standards for green buildings in the U.S. These standards address numerous areas of performance, including water and energy usage, building materials and more. The process, however, does not end with certification when a building is completed. Buildings must maintain their performance and must meet these standards periodically when buildings are reevaluated. The lighting retrofit on the Environmental Studies' floor and other parts of the building (see page 8 & 9) contributed heavily to the building's energy efficiency and overall certification.

This year, the class was composed of an interdisciplinary group students from the Environmental Studies Program and the Bren School of Environmental Science and Management and was taught by ES alum Brandon Kaysen (Class of 2012).

Take it Outside

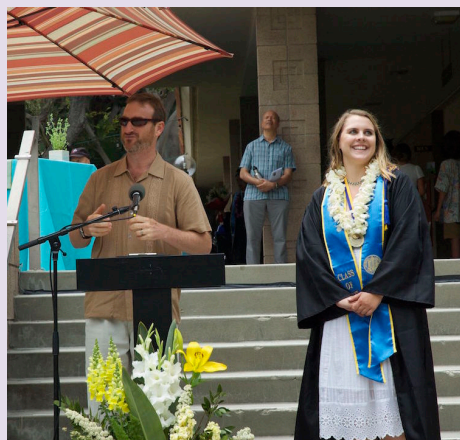
ES continues to recognize the value in taking students out of the classroom.

With support from funds in the William Freudenberg Academic Fund, the ES Program continues to provide its students with opportunities to step out the classroom. Like those pictured below, students in ENV S 119 (left) and ENV S 113 (right) can apply their knowledge to the real world. The ES Program sees the importance of having students train and develop hands on skills.



Environmental Studies Class of 2017

The Environmental Studies Program would like to give a huge congratulation to the Class of 2017! With over 300 graduates, 2017 marks the largest graduating class in the history of the Environmental Studies Program! Since 1970, the Environmental Studies Program has graduated 6,632 students! There were over 300 guests at the Commencement Reception, and over 70 students received an academic achievement award (overall GPA of 3.5 or higher). Another 19 students received an additional Environmental Studies Program award or scholarship.



Senior Thesis Award recipient, Joelle Alley (left) and advisor, Anthropology Professor Casey Walsh.



Marc McGinnes Law and Advocacy Award recipient, Rosie Fatta with friends and family.



Tim Olson ('88) with Outstand Senior Award recipients (left to right): Alejandra Posada, Linn Bumpers, and Joey Conway.



ES LPSOE, Helene Gardner and ES Chair, Carla D'Antonio with Outstanding Service Award recipients (left to right): Shane Dewees, Rosemaire Heininger, Bryn Daniel, Chris Berry, Michelle Sevilla, Carina Bilodeau, Claire Wilson, Samantha Collette, Charlotte Sedlock, Evan Glessner, and Conor Grimes.



2017 Outstanding Alum, Richard Halsey (Class of 1978) with ES graduates and friends and family.



Dozens of ES graduates' family and friends gather around the Musical Bowl for the Commencement Reception.

Innovation in Watershed Protection

ES hosts second annual Darcy Aston Memorial Lecture.

During the past three years, a group of Darcy's friends and colleagues in Santa Barbara have honored her life and work by creating an annual lecture and community gathering focused on Darcy's passion—water resources and watershed protection. The Sustainable Water Lecture celebrates Darcy's commitment to and passion for the environment and sustainable management of water.

On January 28, 2017, the second annual Sustainable Water lecture was held at Bren Hall 1414. The theme of the event was "Inspiring Innovation in Watershed Protection: From Grassroots to Policy to Practice." Keynote speaker Martha Davis, former Executive Manager of Policy Development at the Inland Empire Utility Agency—who also headed up the Mono Lake Committee for several years—gave an inspiring account of how that committee used a grassroots approach to gain the support of communities in both the Owens Valley and the City of Los Angeles for restoring Mono Lake. For decades the LA Department of Water and Power (LA DWP) derived much of its water supply from the Owens Valley. Through a series of water rights hearings and legal challenges beginning in the late 1970s, which resulted in protecting instream flows in creeks and rivers in the surrounding watersheds, LA DWP was mandated to reduce its importation of water from the Owens Valley.

Ms. Davis talked about how the Mono Lake Committee's outreach program brought community members from LA to Mono Lake to learn about the ecosystem impacts of exporting fresh water from the watershed surrounding the lake to LA residents hundreds of miles south. This grassroots effort led to the restoration of Mono Lake and helped the City of Los Angeles reduce its water demand and become more reliant on local and other water sources.

The panel was moderated by Bob Wilkinson (ES Adjunct Professor Emeritus) and included George Johnson (City of SB Creeks Supervisor), Art Ludwig (Ecological Systems



Panelists discuss watershed policy during the lecture.



Second annual Darcy potluck in Bren 4016.

2018 Lecture and Potluck

The 2018 Darcy Aston Memorial Sustainable Water Lecture and Panel will be held on Thursday May 17, 2018. Additional event details will be available on the ES website at <http://www.es.ucsb.edu/news>.

Designer and Author) and Cora Kammeyer (ES graduate and Bren Masters of Environmental Management student). Panelists highlighted local efforts to use every drop of water efficiently through graywater use, storm water capture and use, water markets, and conservation.

(Written by Lynn Rodriguez and Rachel Couch).

2016 Alumni

Survey Update:

The ES Program would like to thank the 1,100+ ES Program graduates who took the time to complete the survey. The results are currently being compiled and will be available on the ES Program's Alumni webpage in early 2018. <http://www.es.ucsb.edu/alumni>.

In Memoriam



Jo Little (1954 - 2017)

Mary Josephine "Jo" Little passed away at Cottage Hospital on Friday, April 14, 2017 surrounded by her dear family and close friends. Jo Little was the Environmental Studies Program Manager for 18 years. With her warm smile and quiet wisdom, Jo was the keel that guided our ship for almost two decades.



David Brokensha (1923 - 2017)

David "Brokey" Brokensha passed away peacefully at his home in Fish Hoek, South Africa on June 15, 2017. Professor Brokensha came to UCSB in 1963 and was faculty in Environmental Studies from 1983 until his retirement. In his lifetime, Professor Brokensha made significant contributions to the area of development anthropology. His scholarly interested focused mainly on social and ecological changes in rural Africa.

The Environmental Studies Program

50
Past, Present, and into the Future
UC Santa Barbara

Save the Date Spring 2020

The Environmental Studies Program at UC Santa Barbara would like to invite you to celebrate the 50th year of the program with an all-yearlong celebration. Beginning Fall of 2019 with events throughout the academic year and culminating in our 50th Celebration Spring of 2020.

Want to Donate, Engage, or Participate?

Visit our website www.es.ucsb.edu/giving/ES50th
for more information on how you can
be part of the celebration!

Recent Donors

We would like to thank the following individuals who contributed to Environmental Studies from July 1, 2016 – June 30, 2017.

Ms. Darlene Bierig
Mr. Arden Buck and Mrs. Elizabeth Buck
Ms. Andrea L. Cristofani and Mr. Mark Geurts
Mr. Christopher K. Fletcher and Mrs. Malin Fletcher
Mr. Kevin J. Gannon and Mrs. Angela K. Gannon
Green Environment Inc
Mr. Kevin A. Hart
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Mr. Kevin P. Hrabovsky and Mrs. Laura Hrabovsky
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Schwab Fund for Charitable Giving
Dr. Daniel D. Shoemaker and Mrs. Michele M. Shoemaker
Mr. Kevin G. Vielbaum

The goal of Environmental Studies at UCSB has always been to provide our students with the best opportunities to explore, learn, and develop. Each year, we are fortunate to receive support from alumni, friends, family and community members who recognize the value of our program. The support from our donors goes a long way toward enhancing classroom and fieldtrip experiences, providing scholarships and awards, and other student support. We invite you to join us in pursuit of our goals by donating to one or more of the following causes:

Student-Learning Enrichment Funds

To remain competitive with other top universities, the program provides undergraduate students with fieldtrips, guest lecturers, exposure to new technologies, and other hands-on experiences that enhance education across the curriculum. Student enrichment gifts support the William Freudenburg Academic Development Fund. Other student enrichment funds will provide scholarships to students to participate in external programs focused on experiential learning such as "Wildland Studies," Field Studies, Education Abroad and off-campus internships.

UCSB Center for Undergraduate Environmental Leadership

Opportunities for leadership training and mentored leadership experiences at the undergraduate level are rare. ES seeks to establish a Center for Undergraduate Environmental Leadership (CUEL). Center's primary mission will be to foster leadership skills and opportunities in undergraduates dedicated to positive environmental and social change. Specifically, CUEL will develop four primary areas of activity: 1) The Environmental Leadership Incubator, a year-long leadership experience organized around student-initiated projects that propose and implement a solution to an environmental challenge; 2) An environmental internship clearinghouse; 3) Enhancement of Existing ES Careers course through a visiting speaker's program; 4) and Environmental Alumni Networking Hub to amplify mentoring and career opportunities.

Darcy Aston Memorial Lecture Fund

This fund will support an Annual Lecture and Community Gathering on Water Sustainability. These annual lectures will focus on innovative approaches to the complex issues of water quality and watershed protection.

Environmental Studies General Fund

The Environmental Studies Program has a general fund, which is intended to give the chair complete discretion to provide funding for the program's most pressing needs.

NEW: Environmental Studies 50th Anniversary Celebration

The 2019-2020 year represents the 50th anniversary of the Environmental Studies Program. Help us to celebrate the past, present and future of this fabulous program through speakers, performers, panels, and engaging events for students, alumni, staff and faculty throughout the year.

Contact

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Visit www.es.ucsb.edu/giving to learn more about ways you can support Environmental Studies' commitment to educating the next generation of environmental leaders.

Environmental Studies Program

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