Our goal is to make an impact that is: Positive. Lasting. Powerful. Through research and teaching the Bren School is poised to make a significant impact on the choices humankind makes with regard to the environment, economic conditions, and the quality of life on earth we enjoy. Through philanthropy, individuals, foundations, and corporations with vision support our mission. Their generosity is extraordinary. Their vision is positive, lasting, and powerful.
THE RISING AND THE SETTING OF THE SUN OVER THE OCEANS OF THE WORLD, SNOW-CAPPED PEAKS,
great plains, majestic forests, shimmering deserts, animals great and small — across
time and cultures, nature evokes in the human heart a sense of wonder and reverence.
As we unravel the mysteries of the universe, we have begun to understand the incred-
ible impact our existence has on the very fabric of life on earth. The greatest challenge
for humankind is balancing our desire to live bountiful and prosperous lives with
preserving the integrity of the natural world in order to sustain generations to come.
Achieving this delicate balance is at the heart of the Bren School’s vision.

The Donald Bren School of Environmental Science & Management is a University
of California graduate program located on the UC Santa Barbara campus. Its primary
mission is to integrate science, management, economics, law, and policy in the area
of environment. It also provides intercampus programs in the management and law,
again, with an environmental focus.

In its brief history, the Bren School has assembled a distinguished multi-disciplinary
faculty, launched innovative graduate degree programs, and built an exemplary “green”
facility. Through rigorous natural and social science research, legal and policy studies,
and involvement in a wide range of projects and perspectives, Bren students and faculty
are uniquely qualified to make a difference in the world. Nowhere is this more evident
than in the six examples of high-impact research illustrated in this brochure. These
are just a small part of the full faculty’s research agenda, which is rich, diverse, and
evolutionary.

The pages that follow also provide information on Donald Bren Hall, a remarkable
“living laboratory” that supports the teaching and research of the Bren School. It is my
hope that this award-winning building inspires others to build in a similar energy-
efficient and environmentally sensitive way. The most powerful lesson learned from
our experience is that it doesn’t cost any more to do this — yet the future savings can
be tremendous.

I am honored to work among students and colleagues who still marvel at the beauty
and majesty of nature and who strive, through their extraordinary expertise, to find
solutions that ensure humankind will enjoy a bountiful yet responsible co-existence
with a flourishing natural world.

The financial support of The Donald Bren Foundation launched this magnificent enter-
prise called the Bren School. It is critical that we attract additional private support in
order to fully realize the greatness that is in us. Please join us in our quest to achieve a
sustainable world.

Dennis J. Aigner, Dean
THE MESSENGER

“An understanding of the Earth’s processes and habitats in their natural as well as their disturbed states can provide the necessary basis for environmental problem solving and restoration.”

Thomas Dunne
Watershed Science Teaching Laboratory

Professor Dunne is an internationally recognized earth scientist known for his studies of erosion on environmentally sensitive landscapes. Dunne specializes in geomorphology and hydrology — the sciences that treat the role of water in shaping the Earth’s surface and conditioning its range of environments.
BRINGING INSIGHTS FROM THE AMAZON TO CALIFORNIA

The enormous, remote Beni and Mamore-Grande river basins in South America contain examples of the world’s few river systems that have not been degraded by humankind. By studying patterns of river flow and sediment movement from the Andes Mountains to the Amazon through these rivers, Professor Dunne examines how natural rivers and their floodplains function. The diversity and productivity of plants, fishes, and terrestrial animals are direct results of the natural behavior of the rivers and their floodplains.

POLICY IMPLICATIONS: Data analysis and computer models generated in Professor Dunne’s Watershed Sciences Laboratories can predict effects in other rivers, and can be used to plan the restoration of our massively modified rivers toward more natural states that can provide multi-species conservation, improved water quality, recreational spaces, and public safety. These models are being used in the planning phases of river and fishery restoration projects in California and the Pacific Northwest.
Since its enactment in 1973, the Endangered Species Act has been hailed as a precedent-setting model for the conservation of endangered species worldwide. It has become both a political touchstone and battleground for legal challenges, legislative changes, policy modifications, and recovery actions for a multitude of species. Congress has made clear that the US Fish and Wildlife Service (USFWS), which has responsibility for implementing the law, must determine whether to list species based exclusively on biological data regarding genetic uniqueness and endangerment. By studying how congressional committees oversee the listing process, Professor Freeman, in her joint research with J.R. DeShazo, shows that the internal organization of Congress—and specifically the number of “representatives” a species has on key oversight committees—can have a greater effect on whether a species is listed than do the biological criteria.

**Policy Implications:** Environmental law consists of a complicated web of statutes passed by Congress and the states, implemented by federal and state agencies, and interpreted by courts. This institutional setting has its own ecology: it is dynamic, adaptive, and highly interdependent. To understand environmental outcomes requires an appreciation of the different roles these institutions play. Understanding these dynamics enables both the regulated community and environmental advocates to intervene more effectively in the policy-making environment—whether through lobbying, litigation, or collaborative negotiation.
“Effective environmental solutions require an understanding of how environmental law is produced, administered, and enforced by key institutions such as Congress and state legislatures, federal and state administrative agencies, and courts.”

Jody Freeman
Associate Dean for Law and Policy, Bren School Professor of Law, School of Law, University of California, Los Angeles

Jody Freeman is a Professor of Law at the UCLA School of Law where she teaches Environmental Law, Administrative Law, and Toxic Torts. She also teaches Environmental Law and Policy at the Bren School and is developing a partnership between the Bren School and the Environmental Law Center at the UCLA School of Law. Professor Freeman’s scholarship focuses on private-public collaboration in governance, with a particular emphasis on environmental regulation. She writes about governance theory, dispute resolution, regulatory innovation, and privatization.
“Economics underlies sound solutions to environmental problems. There can be no comprehensive solution without a human dimension, which in large part involves economics.”

Charles Kolstad
Donald Bren Distinguished Professor of Environmental Economics & Policy
The Seminar Room

Most of Professor Kolstad’s research has been in the area of regulation, particularly environmental regulation. Recently, he has also done work in environmental valuation theory. He is particularly interested in the role of information in environmental decision-making and regulation. His major research focuses on the role of uncertainty and learning in controlling the precursors of climate change.

A vast body of scientific data indicates that human impact on the environment is changing world climate. Climate change may have little impact on some countries, but it will have a devastating impact on others. While there are some obvious steps to correcting this impact, other mitigations are less certain and carry with them costly solutions for every nation. At what point should governments regulate corporate and human behaviors when the level of certainty about the causes of pollution and climate change are not clear or have yet to be substantiated by science? Who will bear the cost of these solutions? If governments wait for more certainty will it be too late to effect the changes necessary to restore the world’s natural climate?

**Policy Implications:** Professor Kolstad’s research findings have had a significant formative impact on shaping the official positions of several counties around the world on the issue of global warming.
TO WORLD ECONOMIES
LEADING HIGHER LEARNING

Founded in 1868, the University of California is widely respected as the best public university system in the world. Through its ten campuses, three national laboratories, and hundreds of libraries, museums, community programs and facilities, the UC system touches the lives of millions of people throughout California, across the nation, and around the globe.

UC Santa Barbara’s meteoric rise to international distinction in just over fifty years is a phenomenal success story in modern higher education. With approximately 19,600 undergraduates, 2,600 graduate students, and more than nine hundred faculty members, UC Santa Barbara is the site of cutting-edge intellectual activity that spans the academic spectrum. One of the ten campuses of the University of California, UCSB is a member of the prestigious Association of American Universities (AAU) and is home to three colleges, two professional schools, seven national research centers and nine organized research units. These units foster the campus’ highly interdisciplinary research, which has become a hallmark of distinction. UC Santa Barbara is committed to providing an outstanding environment for teaching and learning, offering strong programs of research that adhere to the highest standards of academic excellence, and contributing to the well-being of the world community.

Its academic prominence gives UCSB an edge in creating research centers and laboratories that attract faculty and students of the highest caliber. Many faculty are members of prestigious scholarly associations including the American Academy of Arts and Sciences, the National Academy of Sciences, and the National Academy of Engineering. In addition, the Nobel Prizes in chemistry and physics won by three distinguished UC Santa Barbara professors for their groundbreaking interdisciplinary research have brought international recognition to the campus.

Located on the central California coast, the campus is ideal for the study of environmental science and management as it is adjacent to diverse and rich marine, aquatic, and terrestrial ecosystems. In addition, students and faculty have access to the University’s Natural Reserve Systems throughout California, where they can study the management of natural ecosystems. UCSB manages six reserves and field stations dedicated to environmental teaching and research.
The School and building are named to honor the vision and generosity of Donald Bren. Supported by his 1997 pledge, the School adopted Donald Bren’s vision to create a graduate school where science, business and management practices are integrated with law and policy to form a single cogent curriculum, unlike any other in the nation.

Donald Bren Hall is a state-funded building with key components being supported by visionary corporations, foundations, and individuals. Through their investment, the building reflects the convergence of academic excellence, collaboration, and partnership. The result is an environmental landmark for teaching and learning and is the most sophisticated green environment in academia.
Donald Bren Hall demonstrates the core value of sustainability by minimizing the impact on air, water and land while showcasing high-performance products and services that efficiently use energy and natural resources in new and creative ways. Building with these concepts is what it means to be “green”. 

Donald Bren Hall is an 85,000 sq. ft. living laboratory. It is a highly visible symbol of the foundation upon which the School is built — a partnership of leaders, visionaries, and scholars. It has become a national symbol of sustainable “green” building design and exemplifies the convergence of equity, ecology, and economy. Through its laboratories and meeting places the building facilitates world-class environmental research and teaching, the impact of which will have long-lasting and far-reaching benefits for the world.

Donald Bren Hall has received a Platinum Leadership in Energy and Environmental Design (LEED™) Award, the highest level of distinction the US Green Building Council can bestow upon a capital project. One of only two buildings in the United States to have achieved this honor, Donald Bren Hall is one of the “greenest” buildings in America.

Donald Bren Hall stands as a model demonstration site for the UC system and the State of California. The building and its materials are being monitored so that data on its energy efficiency and performance can inform others on best practices in the green building movement.

“Extraordinary by Design

“This building has set a precedent for the new century. Donald Bren Hall serves as the greatest statement the School can make about practicing what we teach.”
—Dennis J. Aigner, Dean

“The Bren School at UCSB is a role model for all buildings and campuses in California.”
—California Governor Gray Davis

Left: Rising three stories to the sky, the central courtyard is a testament to the architectural integration of open spaces with the need for human shelter. Right: Kermit the Frog has partnered with the Bren School to send the message nationally that “being green is easier than you think!”

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**VISITORS CENTER:** This first floor 548 sq. ft. glass-enclosed visitors center is the public gathering space for building tours and receptions. It showcases sustainable products and information about the greening techniques used throughout the building and serves as an “open house” to feature student and faculty research.

**DEAN’S TERRACE:** Perched on the second floor overlooking the Pacific Ocean, this 1,545 sq. ft. patio terrace adjacent to the Dean’s suite of offices offers a spectacular venue for social events and interaction.

**COLLOQUIUM ROOM:** This 1,785 sq. ft. lecture theater/multimedia room located on the first floor is designed with stadium-style seating for one hundred, and will be equipped with state-of-the-art distance-learning capabilities. It is the primary teaching space for environmental economics, business, law, and policy classes. Research across all disciplines can be presented in multimedia and three-dimensional formats.
WATERSHED SCIENCE TEACHING LAB: This second floor 950 sq. ft. laboratory serves as the primary staging area for field investigation, experimentation, and analysis for scientific research and teaching in hydrology, meteorology, physical limnology, and oceanography. State-of-the-art technology and instrumentation will support the innovative and advanced research techniques for teaching graduate students.

GIS/COMPUTING TEACHING LAB: This third floor 950 sq. ft. laboratory supports the Bren curriculum in computational modeling, geographic information systems, and environmental information management. Thirty-two high-end workstations with advanced graphics, visualization, and processing capabilities share access to large-format high-resolution color printers and scanners. For AV needs, the room has screens, data projectors, DVD, VCR, audio inputs, a computer and podium, and an internet connection.

BIOGEOCHEMISTRY TEACHING LAB: This second floor 950 sq. ft. laboratory supports the Bren School’s unique interdisciplinary curriculum in biology, geology, and chemistry. Leading-edge analytical instrumentation will support innovative and advanced research techniques for teaching graduate students.
Philanthropic investment makes a tremendous impact on the Bren School’s ability to achieve its academic mission. Annual gifts for student support, endowments for the building, and gifts from foundations, corporations and individuals make it possible for the School to be the preeminent institution for environmental science and management, teaching and research.

The Bren School is grateful for all charitable gifts, and seeks to honor leading donors who provide major support for student, faculty, programmatic, and capital needs. One significant way to pay tribute to our most generous supporters is to name the benefited program or facility for the donor. One of the highest priorities of the Bren School is to secure investment in the various components of Donald Bren Hall.

The Bren School is indebted to the following corporations without whose generosity Donald Bren Hall could not have achieved Platinum LEED™ certification. Armstrong World Industries, Milliken Carpet, Johnson Controls, Pacific Earth Resources, Parker Boiler, POWERLIGHT, Sarnafil, Southern California Edison, To Market, Valley Crest Tree Company, and Waterless Co.

**BREN HALL STUDENT FACILITIES**

**Student Computing Facility (SCF):** This 882 sq. ft. room located on the third floor serves the Master’s students as the main computational facility for the program. Lab sections are held in this space to complement the core curriculum. This room houses forty-one computers and has both color and black and white printing capabilities.

**Reading Room:** This 477 sq. ft. room is located on the third floor next to the interaction area. This space houses journals and publications relevant to the teaching and research programs at the Bren School, as well as Bren student’s final thesis documents and dissertations. It also provides a quiet study space for students, staff, and faculty.

**BREN HALL PUBLIC FACILITIES**

**Seminar Room:** Located on the first floor, this 1,293 sq. ft. space is dedicated to featuring special lectures and symposia and accommodates approximately seventy people. It will be equipped with distance-learning technology.

**Sycamore Conference Room:** The Sycamore Room is located on the first floor of Donald Bren Hall just off the central courtyard. The 506 sq. ft. room typically seats twenty-two people around a center table. It has a motorized screen, data projector, DVD, VCR, audio inputs, with a computer and podium and an internet connection. It serves corporate partners, students, and faculty for meetings and presentations as well as teaching space for graduate students and executive programs.

**Interaction Area and Terrace:** The third floor interior and exterior gathering space is the hub for informal meetings between faculty and students. The large glass wall between the spaces provides wonderful natural lighting, while the terrace overlooks the lush courtyard below.

**Administrative Offices:** Located on the second floor, these offices and reception area open on to the large outdoor terrace overlooking the Pacific Ocean.

**OUTDOOR SPACES**

**Central Courtyard:** The 5,727 sq. ft. open-air courtyard is the focal point of the first floor of Donald Bren Hall with conference and meeting rooms opening out into this large space. It has planters and benches and is a model for programmatic interaction with our natural environment.

**Faculty Interaction Deck:** This third floor terrace overlooks the Central Courtyard. It holds planters and benches and provides casual outdoor space for interaction in a natural environment.
WHY SUSTAINABILITY IS SMART BUSINESS
The World Business Council for Sustainable Development, founded in 1992, now counts among its 160+ members many of the world’s leading multinational companies. In the past few years, several new firms have been created that evaluate and rate corporate environmental performance and demonstrate its positive relationship to stock price. Socially responsible investing is growing by leaps and bounds in the U.S., Canada, and Europe. Companies are finding new ways to be successful by being strong environmental performers.

**Policy Implications:** As good environmental performance becomes profitable for business, America will need to rethink the adversarial, command-and-control regulatory structure that has dominated U.S. environmental policy for the past thirty years, and move to a more cooperative approach. Especially important in this evolution will be global competition and international trade as forces to reverse environmental degradation.

**The CEO**

“The business case for sound environmental practices is becoming more compelling every day. In the near future a company’s environmental record will be tantamount to a license to operate.”

Dennis J. Aigner
Dean, Bren School

Professor Aigner’s research is focused on corporate environmental management, U.S. competitiveness in global markets, foreign investment, and state and local economic issues. His work is devoted to understanding how corporate environmental performance relates to financial performance and shareholder value.
Snow-capped peaks are a stunning example of nature’s ability to store water as ice until it is needed in the form of water. Professor Dozier has conducted studies worldwide to determine how water is stored in seasonal snow caps, how it evolves in a frozen state, how it melts and what happens when it does. In the GIS Lab his physical-based computer models have led to a multidisciplinary approach to understanding how the world’s most precious natural resource will be transported through the earth’s systems as the world’s climate changes and the human population increases.

**Policy Implications:** Professor Dozier’s computer models can predict the effects of global warming over the next few decades and can help governments develop water management policies now and into the future.
Traditional water testing methods are hit or miss because they only reveal the microbes that can grow in the laboratory. Professor Holden is studying the DNA markers of various microbes with an eye toward accurately determining the presence and concentrations of pathogens, or disease-causing “bugs,” in coastal waters. Professor Holden and her research group are studying these new methods for tracing the migration of pathogens from urban areas to the ocean.

**POLICY IMPLICATIONS:** Professor Holden’s studies of coastal California waters should help determine the points at which pathogens are entering the environment and their sources. By doing so, her research can inform policymakers regarding how land use affects the quality of our waters. Her research is applicable to all urban areas along the streams and rivers that feed the ocean, and her techniques using DNA markers could be adapted worldwide to better inform communities and policymakers who are seeking out methods to ensure the quality of their water.

―Identifying the minute clues we find in our environment is the first step in the complex process of recognizing cause and effect and ultimately, in managing solutions.‖

Patricia Holden
Biochemistry Teaching Laboratory

An environmental microbiologist who focuses on bacterial ecology and physiology, Professor Holden’s teaching extends from her research on the microbiology present in our ecosystems including the ability to identify organisms and their individual and interrelated roles in environmental health.
Through innovative strategic partnerships with individuals, foundations, and corporations, the Bren School is quickly becoming a world-renowned institution. Philanthropic gifts ensure that the Bren School has the necessary resources to attract the finest scholars and graduate students, and to enable them to conduct leading-edge teaching and research that will benefit generations to come. To this end, we seek direct support in two critical areas:

**Student Support**
We view the task of preparing the next generation of environmental leaders as a fundamental responsibility. An unyielding commitment to assisting students is one of the keys to the Bren School’s continued excellence, and an area in which donors can have a direct and personal impact on individual lives. Fellowships are essential to attracting and retaining the brightest students. Annual gifts of student support can establish a one year named prize or fellowship. Endowed fellowships are especially valuable in ensuring the School’s ability to attract top scholars now and in the years to come.

**Corporate Partnerships**
Corporate partnerships with the Bren School create mutually beneficial alliances with local and national corporations and non-governmental organizations. The return on industry’s investment in partnering with the Bren School includes access to a world-class university, cutting edge technologies, and recruiting opportunities.

If you have any questions about how you can make a gift that reflects your personal interests and makes an extraordinary impact, please contact Jennifer Purcell, Assistant Dean of Development, at (805) 893-5743 or jennifer@bren.ucsb.edu.
IMPACT