

# ENVIRONMENTAL STUDIES PROGRAM

*University of California, Santa Barbara*

*est. 1970*

Academic Advising

805-893-2283

[advising@es.ucsb.edu](mailto:advising@es.ucsb.edu)

[www.es.ucsb.edu](http://www.es.ucsb.edu)

In 1969 Santa Barbara experienced the worst oil spill in U.S. history up to that time. The University of California, Santa Barbara was within sight and smell of the littered channel and its beaches. Until that point in history, the world of academia had not yet realized that it overlooked a very important aspect of educating students on how to care, respect, and develop a framework to protect our fragile world.



But this all changed just a few weeks after the spill when on February 18th, 1969 a group of twenty-one faculty, calling themselves *The Friends of the Human Habitat*, met to discuss the possibility of promoting environmental education at UCSB. The members of the ad-hoc committee were geologists, geographers, engineers, biologists, an economist, and a historian. By the fall of 1970 the Environmental Studies Program at UCSB was established, one of the first of a new breed of educational programs in the country. It was constructed as a multidisciplinary program drawing on the strengths of many fields and providing a balanced and holistic approach to complex environmental issues.

Five decades later, the Environmental Studies (ES) Program still holds true to its goal of offering students an interdisciplinary education while simultaneously evolving to meet the challenges of an ever changing world. The first graduating ES class in 1972 had only 12 students. In 1980 the total number of graduates rose to 871. Today, with more than 1,100 enrolled students and over 8,000 alumni, the ES Program at UC Santa Barbara is considered one of the largest and most successful undergraduate environmental programs in the world.

**What is Environmental Studies?** Simply put, environmental studies is the systematic study of human interaction with the natural environment. Today's environmental problems are highly complex interdisciplinary issues involving political, economic, social, physical and biological considerations. Modern environmental studies must include the examination of both the urban and natural environment. Society needs educated people who can address current and future environmental problems using a holistic approach, one that emphasizes linkages between systems such as the urban environment and atmospheric contamination, or economic growth and its impact on natural resources. These types of relationships must be analyzed and understood in order to successfully address environmental problems at local, regional, and global scales.

**The Environmental Studies curriculum** at UCSB is designed to provide students with the scholarly background and intellectual skills necessary to understand complex environmental problems and formulate decisions that are environmentally sound. The academic process is interdisciplinary, drawing upon the diversity of environmentally related departments and disciplines throughout UCSB. A student majoring in environmental studies will explore a wide variety of issues, including:

The social and human environment: urban and regional planning, ethical and values systems, the history of human/environment interactions, environmental law and policy, indigenous and cultural beliefs, human dimensions of globalization, sustainable agriculture, and environmental impact analysis

The physical environment: the hydrologic cycle, waste management, coastal processes and management, energy production technologies, soil preservation, geography, and air/water pollution

The biological environment: the function of ecosystems, population dynamics, toxicology, and habitat conservation and restoration

**The ES Program offers two degrees in environmental studies:** B.A. and B.S. degrees. While both majors stress the importance of understanding interrelationships between the humanities, social sciences, and natural science disciplines, offering two degree options affords students the opportunity to choose a major that most appropriately fits their environmental interests and long-term goals.

The bachelor of arts (B.A.) degree provides maximum flexibility for students to explore the social, cultural, and scientific issues pertaining to the environment. At the preparation level (lower-division) students enroll in a breadth of introductory social science, humanities, and natural science courses to establish a fundamental understanding of today's complex and interdisciplinary environmental problems. During one's junior and senior years (upper-division level) they complete four required courses and select 28 elective units from a wide range of 80+ environmental courses to develop an unique emphasis based on personal interests and goals. The last part of the major is a 16-unit outside concentration where students complete courses from one or more UCSB departments/programs relating to their emphasis. More than a quarter of ES majors use this section to complete a double major or minor and many more participate in a field studies or study abroad programs. Some popular emphases B.A. majors pursue include: law and policy, urban and regional planning, education, environmental economics/green business, waste management, environmental justice, journalism/media, sustainable agriculture, environmental design, and environmental issues in developing nations.



The bachelor of science (B.S.) degree is similar to the B.A. as it requires introductory social, economic, political and ethics courses. But the B.S.'s primary focus is to train students to become proficient in the natural and physical sciences and develop their technical, quantitative, ecological, and analytical skills. Thus, a greater number of introductory courses in biology, mathematics, chemistry, and physics are required versus the B.A. degree. At the upper-division level students take a majority of their environmental electives and outside concentration courses from the natural and physical science disciplines to better understand the role they play in solving environmental problems. B.S. students often formulate their electives to create emphases such as air and water quality, conservation and habitat restoration, environmental health and toxicology, developing renewable energy technologies, wildlife management, and soil and ecosystem science to name a few.

The ES Program also offers a **bachelor of science degree in Hydrologic Sciences and Policy** which provides students with the scientific training needed to understand and solve complex hydrologic (water) problems at local, regional, and global levels. As hydrology deals specifically with the occurrence, circulation, distribution, and properties of the waters of the earth and its atmosphere, its curriculum is more focused than either of the environmental studies degrees. It provides a rigorous framework of courses in biology, chemistry, math, geography, physics, and geology necessary for students to understand the hydrologic process and the impacts humans have upon it. Introductory courses for this major concentrate on physical & natural sciences to prepare majors for demanding upper-division courses in rivers, environmental hydrology, water pollution, and water policy. To complete the major students select courses in one of three emphases: Biology/Ecology, Earth Science/Chemistry, or Policy. Although the B.S. degree in Hydrologic Sciences and Policy is housed within the ES Program, it is a cooperative effort by the departments of Ecology, Evolution and Marine Biology, Chemistry, Geography, Earth Science, and a number of social science departments.

Major requirement sheets for all ES degrees are online at: [www.es.ucsb.edu/degrees](http://www.es.ucsb.edu/degrees)

**The ES Faculty:** UCSB's Environmental Studies Program employs 17 faculty members (including two distinguished endowed chair positions), many of whom hold joint appointments with other UCSB departments, including: anthropology, biological sciences, earth sciences, economics, geography, history, and sociology. Additionally, there are a number of affiliated faculty from other departments who teach courses for the ES Program and approximately 12-15 working professionals who teach 'real world' courses on environmental topics within their field of expertise. Visit the ES website's People section for a complete list of ES faculty, their areas of expertise, and detailed biographies and research interests: [www.es.ucsb.edu/people](http://www.es.ucsb.edu/people)



## Welcome from the ES Program Chair, Professor David Pellow:



UCSB's Environmental Studies Program is a vibrant community of inspiring faculty, lecturers, students and staff. We're one of the first and most prestigious Environmental Studies programs in the nation. We are also one of the largest programs in terms of the cumulative numbers of student graduates over time--around 7500!

The Environmental Studies Program generates transformative ideas through research and educates students to become agents of change for a healthy and just environment. We train environmental leaders of the future and instruct our students in developing the skills, confidence, creativity, and power to positively change the trajectory of our planet at the local, national, and global scales. Our graduates are leaders in every sector, holding jobs in state and federal government, industry, and NGOs focused on, for example,

promoting sustainable and environmentally smart city and county planning, advancing efficiency and ecological sustainability in business, introducing environmental education curriculum in school districts, improving waste management practices in U.S. cities, tackling climate change, and strengthening our democratic systems. Our program's goal is to assist you in developing the skills needed to understand the complex environmental problems societies face, and to participate in generating solutions to these challenges. ES students gain these skills through classes with topnotch and skilled faculty instructors as well as through classes taught by leading environmental professionals. For example our Waste Management course is taught by one of Santa Barbara County's waste management professionals (also a graduate of our program!) and our environmental law sequence is taught by an accomplished attorney who specializes in land use and coastal environmental law. ES students have the honor of being part of the only major at UCSB that features core courses in the sciences, social sciences, and humanities—truly a world-class education.

In addition to stimulating classroom experiences, we try to ensure that our students get out of the actual classroom and into the field. We encourage involvement in Wildland Studies courses and the Education Abroad Program, and we offer a variety of field based courses within our own curriculum. Some of these get students out into wildland settings to view firsthand the challenges of managing wild places in a rapidly changing world. Other courses with a field element expose students to ecological restoration (and restoration internships), water distribution & politics, energy generation, coastal processes and their management, and agriculture and its intricate ties to an array of environmental challenges. Our amazing Undergraduate Advisor helps to place students into internships in a wide range of areas including law, planning, resources management, ocean pollution, environmental education, ecological restoration and more. We also encourage student involvement in research through collaboration with faculty, graduate students, and postdoctoral fellows, and we have small grants available to help facilitate this. A number of our faculty have produced cutting-edge scientific and policy-relevant research in partnership with ES undergraduates, and many of those students have traveled to professional conferences to share their work.



Finally, we have a number of exciting new initiatives that will enable students to go deeper with their work and to apply their skills to produce more inspiring and impactful change. These initiatives are the Environmental Leadership Incubator (ELI), the Center for Undergraduate Environmental Leadership (CUEL), and the Global Environmental Justice Project (GEJP). These centers are spaces of innovation, creativity, collaboration, and problem solving, where students work to produce research, science, technology, art, and actions that promote sustainable, equitable, and lasting solutions for the earth and its peoples in the 21<sup>st</sup> century.

When you consider the natural beauty of the Santa Barbara area, its diverse and extremely active and globally-connected environmental community, and the unrivaled scholastic and academic excellence of our faculty and staff, it is difficult to find anywhere else other than UCSB that offers these kinds of opportunities for an undergraduate to study, understand, and solve the complex environmental problems of our modern world.

As we near our 50<sup>th</sup> anniversary, we will host a series of campus-wide and public events for a national and global audience to commemorate the progress we have made in the program's first half-century, while charting a course for what we plan to accomplish over the next fifty years.

Thank you for your interest in our Program! Please do not hesitate to contact one of our Academic Advisors, Eric Zimmerman or Elijah Baker, or myself should you have any additional questions.

Sincerely yours,

David Pellow, PhD.  
Chair, Environmental Studies Program  
(805) 893-2968  
[pellow@es.ucsb.edu](mailto:pellow@es.ucsb.edu)

Academic Advising  
Environmental Studies  
(805) 893-3185  
[esprogram@es.ucsb.edu](mailto:esprogram@es.ucsb.edu)



## Interesting Facts About Environmental Studies at UCSB:

**Celebrating 50+ years at UCSB!** Recognized as one of the first undergraduate environmental programs in the world, the Environmental Studies Program at UCSB was **established in 1970** as a new, innovative, interdisciplinary program to provide students with scholarly training and critical analysis skills to understand and solve complex environmental problems.

**With 1,100+ majors** and over **8,000 alumni** UCSB's Environmental Studies Program is one of the world's largest and most successful undergraduate environmental programs.

Offer both a **Bachelor of Arts (B.A.)** and Science (**B.S.**) **degree in Environmental Studies** and a third degree in (**B.S.**) **Hydrologic Sciences and Policy**. Multiple degree options provide students flexibility to select a major that most appropriately fits their environmental interests and long-term goals.

Close to a third of all Environmental Studies majors graduate with a **double major or official minor**.

ES faculty research and expertise contributed to **UCSB's 2018 ranking as the 31st best university in the world** based on teaching, research, international diversity, and financial stability.

*Source: Round University Ranking (RUR)*

In 2019-20 just over one hundred ES students **studied abroad in 25 different countries** through UCSB's Education Abroad Program (EAP). Dozens more participated in **academic environmental field studies programs** working as research associates and gaining valuable research experience while helping scientists in exotic locations such as the Amazon, South Africa, Himalayas, Australia, Thailand, Chile, and Alaska.

**Offer over 100 courses** covering a vast array of disciplines and topics, including: Solar and Renewable Energy, Building Sustainable Communities, Principles of Environmental Law, Toxics in the Environment, Global Tourism and Environmental Conservation, Concepts of Environmental Education, Environmental Literature, World Agriculture, Food and Population, Environmental Policy and Economics, Aqueous Transport of Pollutants, Intro to GIS, Coastal Processes and Management, American Environmental History, Waste Management: Product Stewardship and Recycling, Environmental Justice, and many more.

The **Environmental Studies Internship Program** is one of the largest department internship programs on campus. Environmental Studies considers internships a vital bridge between academic course work and practical applications and each year over 150 sophomore, junior and senior ES and Hydrologic Sciences students receive academic credit while completing internship positions locally, statewide, nationally, and internationally.

The ES Program is located in Bren Hall, the **“greenest” laboratory building** in the UC system and the first in the United States to receive a “triple platinum” LEED rating for design and sustainability.

UCSB is **ranked the second greenest university in the U.S.** by national publication Greenopia based on its 62% recycling rate, goal to be zero waste by 2025, use of greywater for landscaping, and large number of LEED certified buildings. Sierra Club Magazine consistently ranks UCSB in it's top ten annual list of “Coolest Schools” in recognition of the campus effort to help solve climate problems and making significant efforts to operate sustainably.

**ES Program alumni have succeeded** in a vast and diverse array of careers in the public, private, academic, scientific, and non-profit sectors across California, the United States, and around the world.

See the next page for a small **sample of job titles held by UCSB ES Program alumni**.

## Sample of job titles held by UCSB Environmental Studies Alumni:

### LOCAL:

Director, Planning Agency  
 Alternative Transportation Manager  
 Executive Director  
 Redevelopment Supervisor  
 Professor of Environmental Studies  
 Executive Director  
 Director of Environmental Safety  
 Principle Architect/Owner  
 Hydrologist

Ventura County  
 Santa Barbara County  
 Santa Barbara County Association of Governments  
 City of Santa Barbara, CA  
 California State University Channel Islands  
 The Land Trust for Santa Barbara County  
 Santa Barbara Cottage Hospital  
 Van Atta Associates, Landscape Architecture  
 Ventura County Flood Control District

### STATE:

Assistant Secretary, Ocean and Coastal Policy  
 Director of International Programs  
 Deputy Secretary, Climate Change and Energy  
 Chief, Environmental Planning & Management  
 Director of Education

CA Natural Resources Agency  
 CA Energy Commission  
 CA Natural Resources Agency  
 CA Department of Transportation  
 Catalina Island Conservancy

### NATIONAL:

Vice President for Sustainability Programs  
 President, Regions  
 Manager of Environmental Assessments  
 President  
 Director of Conservation  
 Director of Bureau of Planning and Sustainability  
 President, Board of Directors  
 National Field Director  
 Senior Research Fellow  
 Resource Management Planner

Quiksilver, Inc.  
 SunPower, leading solar technology company  
 The Walt Disney Company  
 League of Conservation Voters  
 New England Aquarium  
 City of Portland, OR  
 Earth Island Institute  
 Alaska Rainforest Campaign  
 Pew Center on Global Climate Change  
 State of Hawaii

### FEDERAL:

Manager of Communications for the Environment  
 Deputy Director, Congressional and Legislative Affairs  
 Superintendent, North Cascades  
 Deputy Asst. Secretary for Fish and Wildlife and Parks  
 Director, Environmental Planning  
 Specialist, Human Capacity Development  
 GIS Technician  
 Staff Attorney

NASA  
 Secretary of the U.S. Dept. of Interior  
 U.S. National Park Service  
 U.S. Department of Interior  
 U.S. Army Corps of Engineers  
 U.S. Centers for Disease Control and Prevention  
 Hawaiian Islands Whale National Marine Sanctuary  
 U.S. Environmental Protection Agency

### INTERNATIONAL:

Policy Officer/Remote Sensing Scientist  
 Manager of Health, Safety & Environment

Queensland Environmental Protection Agency, Australia  
 MB Petroleum Services, Oman

## ES Program Alumni Survey:

Every five years the Environmental Studies Program conducts an alumni survey to obtain valuable feedback about our graduates' experience while at UCSB and life after graduation. The ES Program is recently concluded its latest alumni survey and we hope to publish the results by fall of 2021. A complete summary of our 2005 Survey Results may be downloaded online at: [www.es.ucsb.edu/alumni](http://www.es.ucsb.edu/alumni)

For more information about the Environmental Studies Program, including its rich history, curriculum and course descriptions, faculty profiles, visit online at: [www.es.ucsb.edu](http://www.es.ucsb.edu) or call 805-893-2968

## Environmental Studies Program Course #s and Titles:

1. Introduction to Environmental Studies
2. Introduction to Environmental Science
3. Introduction to the Social and Cultural Environment
- 15A&B. Environmental Chemistry Series with Lab
25. Quantitative Thinking in Environmental Studies
30. Introduction to Environmental Economics
40. Critical Thinking & Evidence Based Reasoning in Env.
50. Bending the Curve: Climate Change Solutions
60. Applied Ecology
95. Intro to Ecological Restoration Field Skills
96. Intro to Curation of Natural History Collection
99. Introduction to Research in Environmental Studies
100. Environmental Ecology
101. Ecosystems Services and Biodiversity
102. Qualitative Methods in Environmental Studies
- 103A. Flora and Vegetation of CA
105. Renewable Energy Systems
106. Critical Thinking: Human-Env Problems & Solutions
- 108O. History of Oceans
- 108W. Wildlife in America
111. The California Channel Islands
112. World Population, Policies, and the Environment
113. Engineering and Environmental Geology
- 114A&B. Soil Science & Soil Genesis and Classification
115. Energy and the Environment
116. Sustainable Communities
117. Transition to Low Carbon Society
118. Industrial Ecology: Designing for the Environment
119. Ecology & Management of CA Wildlands
- 120A&B. Intro Env. Toxicology & Advanced Env. Toxicology
121. Contaminants of Emerging Concern
- 122CC. Cultural Rep.: The Rhetoric of Climate Change
- 122LE. Cultural Rep.: Literature & Environment
- 122NE. Cultural Rep.: Nature and Environment
- 125A. Principles of Environmental Law
- 125B. Climate Change Law
- 127A. Foundations of Environmental Education
- 127B. Advanced Environmental Education and Practicum
128. Foundations of Ecosystem Restoration
129. Ecopsychology
- 130A. Un-naturalizing Disasters: Risk, Vulnerability, Resilience
- 130B. Global Tourism and Environmental Conservation
- 130C. Aquatic Food and Resource Management
- 130SD. The World in 2050: Systematic Alternatives
131. International Environmental Law and Politics
132. Human Behavior and Global Environment
133. Biodiversity and Conservation Biology
134. Coastal Processes and Management
- 134CJ. Climate Justice
- 134EC. Earth in Crisis
- 135A. Principles of Environmental Planning
- 135B. Advanced Environmental Planning
136. Green Works - Exploring Technology/Sustainability
- 136O. Sustainable Architecture: History & Aesthetics
139. Business and the Environment
141. Chemistry of Global Change
142. Microbes and the Human Environment
143. Endangered Species Management
144. Form, Process, and Human Use of Rivers
146. Animals in Society: Ethical Issues of Animal Use
147. Air Quality and the Environment
149. World Agriculture, Food, and Population
150. The Ethics of Stewardship
151. Environmental Anthropology
152. Applied Marine Ecology
154. Geographical Info Systems for Env. Applications
155. The Built World: Infrastructure & Env. Change
157. Santa Barbara County Agrifood System
160. American Environmental Literature
161. Environmental Communications: Strategies/Tactics
162. Environmental Water Quality
- 163A. Global Water Resources: Water Supply & Demand
- 163B. Global Water Resources: Water Management Policy
- 165A&B. Env. Impact Analysis & Advanced Impact Analysis
- 166DC. Diet and Climate Change
167. Biogeography: Plant & Animal Distribution
168. Aqueous Transport of Pollutants
- 168JH. Gauchos, Cowboys, and Indians
169. Tracer and Contaminant Hydrology
171. Ecosystem Processes
172. Waste Management: Recycling/Product Stewardship
173. American Environmental History
174. Environmental Policy and Economics
175. Environmental Economics
176. Energy Politics and Policy
- 176A. Water Policy in the West
177. Comparative Environmental Politics
178. Politics of the Environment
179. Natural Resource Economics
180. Global Environmental Movements
181. Power, Justice, and the Environment
182. Field Seminar in Community & Personal Resilience
183. Film, Representation, and the Environment
184. Gender and the Environment
185. Human Environmental Rights
186. Development, Displacement, and Environmental Justice
188. The Ethics of Human-Environment Relations
190. Colloquium on Current Env. Topics & Careers
191. Nature and Science Education Practicum
192. Internship in Environmental Studies
- 193AF. Ancestral Foods
- 193CB. Consumer Behavior and the Environment
- 193CE. New Perspectives: Reducing, Reusing & Recycling
- 193CP. Conservation Planning
- 193CS. People's Science: Intro to "Citizen" & Community
- 193EB. Ethnobotany: Human Use of Plants
- 193FE. Fire in Western USA Ecosystems
- 193GB. Green Building Design & Operations
- 193PL. America's Public Lands & Waters - Law & Policy
- 193PS. The Art of Public Speaking for the Environment
- 193SI. Sustainability and Innovation
- 193ST. Sea Turtle Conservation and Management
- 193SW. Intro to Collecting, Wrangling, & Exploring Water Data
- 193SY. Storytelling and the Environment
- 193TF. Transforming Food Systems
- 193TK. Traditional Ecological Knowledge
- 193WL. Wild Literature in the Urban Landscape
195. Environmental Leadership Incubator
197. Senior Thesis in Environmental Studies
- 199/RA. Independent Investigation & Research Assistance

**Detailed course descriptions and syllabi available online at: [www.es.ucsb.edu/courses](http://www.es.ucsb.edu/courses)**



## Getting Out of the Classroom: Experiential Education Opportunities for ES Majors!

More often than not, the deciding factor for a ES graduate being selected for a job or accepted to graduate school is not based on good grades in required courses, but rather the amount of experience one has in dealing with ‘real world’ situations. An employer wants an employee who is versatile, self-reliant, has a high level of self-esteem, can fulfill leadership positions, and can be trusted to do the job. Managers are reluctant to invest time and money in training someone who has never set foot outside the “ivory towers” of academia or who has not demonstrated an ability to cope with adverse situations or interact with others in a professional setting. The classroom will provide the formal education, but those who pursue challenging field and research courses and/or experiential education opportunities will heighten their professional stature and job marketability.

Opportunities to develop hands-on skills deemed important by both ES alumni and industry executives are readily available through the Environmental Studies Program and UCSB. Over three-quarters of all environmental studies majors complete at least one internship, research opportunity, field studies or study abroad program before graduating. Below is a list of some of the many hands-on experiential opportunities ES students may elect to pursue during their undergraduate education:

**Environmental Studies Internship Program (ESIP):** Internships are considered an integral part of the environmental studies and hydrologic sciences curriculum and are fully supported by the faculty. Managed by the environmental studies internship coordinator, this academic program was initiated in 1973 to provide students with experience in their field of interest and to tie classroom learning to practical field applications. Over 150 students are placed in academic internships locally, statewide, nationally, and internationally each year. Positions are available year-round and the internship coordinator is available to assist students in selecting appropriate internships to meet their learning objectives. Academic credit (ENVS 192) is awarded to students who successfully complete an internship position. Many ES majors elect to spend a quarter pursuing interhsips in our state or nation’s capital through the UC Sacramento or UC Washington D.C. Program (UCDC).

**Independent Studies, Research, and Senior Thesis Opportunities:** The Environmental Studies Program encourages students to pursue any number of research opportunities made available to its students, including: enroll in the ES Honors Program, complete a senior thesis (ENVS 197), or conduct an independent research project ((ENVS 99 or 199) or serve as a research assistant with an ES faculty member (ENVS 99 or 199RA).

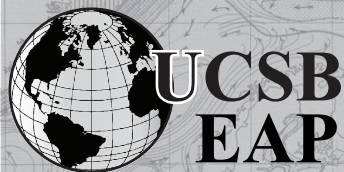
**Enroll in the Environmental Leadership Incubator (ELI):** This course (ENVS 195) combines the theory and practice of leadership, cultivating leadership skills in environmentally-oriented undergraduates and functioning as an incubator for student-initiated group projects focused on positive environmental change under the mentorship of an environmental professional. Projects may address campus, community or regional environmental challenges through social activism, technology development, education, policy change, and other means.

**Studying Abroad:** The flexibility of the environmental studies curriculum permits students the opportunity to pursue study abroad opportunities through the UC’s Education Abroad Program offering over 600 programs in 45+ countires or through third-party academic programs. Past ES majors have studied up to one full year at universities located on six continents or cruise around the world aboard Semester at Sea. Depending on the coursework taken academic credit may be petitioned to substitute for a large number of major requirement units.

**Environmental Field Studies:** Environmental studies students may earn academic credit and fulfill their Outside Concentration while conducting field research in small teams with faculty and professional researchers from all over the globe. Field studies opportunities are available through a number of affiliated environmental field studies and research programs (i.e. Wildlands Studies, School for Field Studies, Sierra Institute, etc.) and offer excellent first-hand field research experiences in often exotic locations like the Peruvian Amazon, Himalayas, Alaskan Wilderness, Belize’s tropical rainforests, Yellowstone, and South Africa to name a few.

*Additional info is available on our website at: [www.es.ucsb.edu/student-programs-0](http://www.es.ucsb.edu/student-programs-0)*





UNIVERSITY of CALIFORNIA, SANTA BARBARA

## Education Abroad Program

**2431 South Hall**  
**University of California**  
**Santa Barbara, CA**  
**93106-3040**  
**(805) 893-2958**

**eap.ucsb.edu**  
**eap.ucop.edu**

*"Remembering the image of women balancing baskets overflowing with freshly baked bread, wide-eyed babies tied to their backs, walking into a classroom as the only white foreigner, and studying to the sounds of bullfrogs as I lay on my dorm room balcony makes me wonder why I returned to the States to finish my education."*

Shelly Barnes  
 ES Major  
 EAP Ghana



# STUDY ABROAD FOR ENVIRONMENTAL STUDIES MAJORS

A variety of environmental problems now affect our entire planet. As globalization continues and the earth's natural processes transform local problems into international ones, no societies are untouched by major environmental problems.

UCSB's Environmental Studies Program strongly encourages its students to consider completing some portion of their undergraduate study through the Education Abroad Program (EAP) or similar "off-campus" studies program. An opportunity to study in a foreign university not only offers an international dimension to an undergraduate education, but can deepen a student's understanding of the causes and effects of today's environmental problems on a global scale.

—————→ **Go explore the global environment!** ←————

## Why study abroad?

Each year dozens of Environmental Studies (ES) majors study abroad. With careful academic planning, ES majors can have an experience of a lifetime studying in a foreign university with no loss of time in completing their degrees. Develop a global understanding of the structure and dynamics of complex environmental systems and enhance your future career through classroom, laboratory and field experiences that are unique to the country and region in which you study.

## Where should I study abroad?

UC's Education Abroad Program provides Environmental Studies students opportunities to study environmental problems and issues in over 30 countries located on six different continents. Students wishing to complete a substantial part of your major requirements abroad have a wide variety of options. There are over 20 different countries with host universities that have environmental studies programs or departments. Additional countries offer a variety of environmental courses through more "traditional" academic departments such as biology, sociology,

geography, and anthropology. And with the option for students to satisfy your "outside concentration" requirement by taking units from any single, non-environmental, department or program, ES majors have a world of choices.

## When should I study abroad?

ES majors are advised to complete their lower-division preparation courses at UCSB before leaving to study abroad during the academic year. Summer programs are popular for students with sophomore standing.

Transfer students are eligible to participate as early as their first quarter at UCSB.

## What classes should I take?

*Keep in mind that students in the College of Letters and Science must complete at least 20 units of upper-division major coursework (or 12 upper-division minor units) in residence at UCSB along with other residence requirements. Consult an advisor in the College of Letters & Science for more information.*

Depending on a student's area of academic interest and the number and type of courses offered at their host university, it is possible for an ES major to apply as many as 36 upper-division EAP units towards major requirements. Here are some helpful guidelines for applying EAP courses towards major requirements, including the **maximum** number of EAP upper-division units that may be applied:

### The Cost of EAP

Studying abroad through EAP can be comparable to the cost of study at UCSB. EAP participants continue to receive UC financial aid while abroad. EAP students are also eligible for special grants and scholarships from UC and other sources.

# STUDY ABROAD FOR ENVIRONMENTAL STUDIES MAJORS

## Go Virtually Anywhere!

The UC Education Abroad Program provides students the opportunity to study in one of over 30 countries located on six different continents!

## Plan Ahead!

Applications are due as much as eight months prior to a program's start date and some programs have academic or language prerequisites that must be satisfied in advance. Please check the EAP web site for application deadlines: [eap.ucsb.edu](http://eap.ucsb.edu)



## EAP Program Search and Course Catalog

To search courses taken by EAP students over the last 5 years by subject, keyword and/or location, or to identify appropriate EAP programs for particular disciplines, explore the resources found under Program and Course Search on the UCSB EAP web site: [eap.ucsb.edu](http://eap.ucsb.edu)

### For the B.A. and B.S. ES majors:

- Area A (required courses) -- max 4 units. The description of the EAP course must be VERY similar (70%+) to the course offered/required at UCSB.
- Area B (electives) -- max 12 units. Either the course content is similar to an ES course offered at UCSB, OR it's a unique course, with no UCSB equivalent, that studies how *humans interact with their natural environment*. NOTE: ES B.S. majors must complete 20 units from the B-1 elective list (emphasizing physical and/or natural science concepts). Students may apply EAP units to this section, but you must prove that the course integrates physical or natural sciences concepts while addressing an environmental topic. Generally, if the course has a biology, chemistry, math, statistics, or earth science prerequisite, then chances are good it will apply to Area B-1.
- Area C (outside concentration) -- up to the entire 16 (B.S.) or 20 (B.A.) units. This is the most flexible part of the ES major. Students may follow one of two options:
  1. Single department option:  
Complete any 16-20 upper-division, letter-graded units from any ONE department or program.
  2. Interdisciplinary emphasis:  
Combine 16-20 upper-division units from more than one department or program to create a

concentration of study that forms a coherent emphasis linking the Area C courses together. Students pursuing this option must justify how the chosen courses relate to each other and create a desired emphasis. Students may combine units from both UCSB and abroad to meet one of these two requirements.

### For the Hydrologic Sciences and Policy major:

- Area A (required courses) -- max 8 units.
- Area B (required for emphasis) -- max 4-8 units.
- Area C (electives) -- max 8-12 units.

Note: Area A and Area B required courses must match the UCSB course content very closely. Area C electives may be similar to a UCSB course, **OR** they may be hydrology-related courses with no UCSB equivalent or are related to your emphasis.

EAP students automatically earn UC credit for the work they complete abroad. However, application of credit to major requirements is subject to the discretion of the department and approval of the college.

## How do I get started?

Consult the EAP web pages ([eap.ucop.edu/](http://eap.ucop.edu/)) to identify appropriate EAP programs. Explore the resources found under Program Search and Course Catalog. Navigate to host universities' web sites on the available links to learn more about the schools and their departments.

Stop by the EAP office at 2431 South Hall. Peer advisors who have recently returned from studying abroad as well as staff advisors are eager to answer your questions. Go see your department Undergraduate Advisor and make an appointment to speak with an advisor in the College of Letters & Science.

## Department of Environmental Studies

Bren Hall, Rm. 4312  
University of California, Santa Barbara  
Santa Barbara, CA 93106-4160  
Phone: (805) 893-2968  
email: [esinfo@es.ucsb.edu](mailto:esinfo@es.ucsb.edu)  
[www.es.ucsb.edu](http://www.es.ucsb.edu)



Download the complete report at:  
[www.es.ucsb.edu/people/alumnifacts.php](http://www.es.ucsb.edu/people/alumnifacts.php)

*By June, 2005, the Environmental Studies Program at UCSB graduated approximately 4,100 students, establishing itself as one of the oldest and most successful environmental studies programs in the nation!*

*As part of the ES Program's 35th Anniversary, an alumni survey was conducted in spring, 2005. As of June 30th, 504 alumni had responded and the following summary highlights the results.*

*For a copy of the complete ES alumni survey report, visit the ES Program's website at: [www.es.ucsb.edu](http://www.es.ucsb.edu)*

THE 2005 ES ALUMNI SURVEY REPORT WAS PREPARED BY ERIC ZIMMERMAN.

THE PROJECT WAS SPONSORED BY THE UCSB ENVIRONMENTAL STUDIES ASSOCIATES AND THE ENVIRONMENTAL STUDIES PROGRAM.

# Environmental Studies Program UC Santa Barbara

## 2005 Alumni Survey - Summary

**504 (12.3%) OF THE APPROXIMATELY 4,100 TOTAL ES ALUMNI SUBMITTED A SURVEY.**

### 1. LOCATION/RESIDENCE OF ES ALUMNI:

**ES alumni currently live in 30 out of the 50 United States & District of Columbia.**

California has the largest population with 404 (81%), Oregon is second with 12 (2.4%), Washington is third at 8 (1.6%), and Maryland is fourth with 7 (1.4%). Other states with multiple ES alumni include: Alaska, Colorado, D.C., Florida, Hawaii, Idaho, Massachusetts, Montana, New York, Pennsylvania, Texas, Virginia, and Wyoming.

**11 ES Alumni (2.0%) live in another country, including:** Argentina, Australia, Bali, Canada, Finland, Guam, Japan, New Zealand, Sultan of Oman, and Benin-West Africa.

### 2. UNDERGRADUATE/ES DEGREE INFORMATION:

Of the 504 respondents, **188 (37.3%)** received a B.A. prior to 1990, **213 (42.3%)** obtained B.A. degree after 1990, **96 (19%)** received a B.S. degree or the B.A. with the Natural Science emphasis, and **7 (1.4%)** had received the B.S. degree in Hydrologic Sciences.

**178 (38.7%) of 468 transferred to UCSB from another institution.** 118 from CA Community Colleges, 24 from another UC campus, and 19 from California State Schools.

Out of the 467 who responded, **167 ES alumni (35.8%) said they graduated with a double major;** the largest departments with ES double majors were Geography - 54, Economics - 27, Biology - 21, and Political Science - 15.

**111 (24.7%) of 450 studied abroad or participated in an environmental field studies/experiential education program** (i.e. EAP, Wildlands Studies, UCDC, etc.).

**225 (48.5%) of 464 alumni completed a Senior Thesis** (86.3% because it was required) and their overall satisfaction with the experience averaged a score of 5.99 (scale of 1=lowest to 7=highest).

**67.1% (314 of 468 respondents) said they completed at least one internship** while at UCSB. 96 (20.5%) did two, 35 (7.5%) completed three, and 10 (2.1%) finished four.

### 3. ALUMNI RANK THEIR UCSB AND ES EXPERIENCE:

Alumni were asked to use a number between 1 (lowest) and 7 (highest) to **rank the following topics based on their experience while a student at UCSB.** 449 responded:

	<u>Avg. Score</u>
Overall Satisfaction With Your Education Within the ES Program:	<b>6.14</b>
Overall Satisfaction With Your UCSB Education:	<b>5.99</b>
The Overall Quality of the ES Faculty:	<b>6.19</b>
The Overall Quality of the ES Staff:	<b>6.18</b>



When alumni were asked to **summarize their overall experience in the ES Program**, the following phrases were used most often:

<b><u>What They Said:</u></b>	<b><u># times used by Alumni</u></b>
Excellent!!!	51
Great!	34
I loved it	21
Very Good	16
Good	15
I enjoyed it	9
Positive	9
Wonderful	9
Fantastic!!!	8
It was great	8
Terrific	2
Amazing!	1
A '10'!	1
Rockin!!!!!!!!!!	1

#### 4. ADDITIONAL EDUCATION

Of 458 respondents, **310 (67.7%) said they completed some form of post undergraduate education after UCSB**. The breakdown was as follows:

	<b>Total # Alumni</b>	<b>% of 458 Total Replies</b>	<b>% of 310 w/ Add. Education</b>
# Grad Degrees (M.A., Ph.D., Etc.)	199	43.4%	64.2%
# completed a Certificate Program	92	20.0%	29.7%
# with Assoc. or 2nd Bachelors	10	2.2%	3.2%
Other or Unknown additional education	9	1.9%	2.9%
<b>Total:</b>	<b>310</b>	<b>67.7%</b>	

There were 21 Ph.D.'s, 42 law degrees, 31 Masters in Planning, 19 Teaching Credentials, 13 M.B.A.'s, 12 Masters in Public Administration, 9 Masters in Education, 8 Masters in Env. Science and Management, 5 Masters in Public Health, 2 Veterinarians, and 1 M.D.

#### 5. PROFESSIONAL SKILLS DEEMED NECESSARY AFTER GRADUATION

375 alumni provided comments regarding **"skills" they deemed necessary for undergraduates to develop if they wish to enhance their marketability after graduating**. Here is a sample of the more popular skills recommended by ES alumni:

- Effective written and verbal communication skills.
- Interpersonal skills, such as the ability to work cooperatively with others on group projects.
- Hands on business skills.
- Research and organizational skills.
- Ability to work independently.
- Technical writing, articulate speaking, and public presentation skills.
- Develop problem solving skills.
- A good work ethic.
- Ability to think critically and creatively.
- Flexibility, adaptability, and perseverance.
- A sense of humor.
- People skills always seem to come first in this world.
- Ability to think on your own and be creative.
- Ability to see the whole picture.
- Awareness of current events and world affairs.
- Writing, writing, writing! So practice, practice.....
- Experience! - Do as many internships as possible.

#### 6. WORDS OF WISDOM FROM ES ALUMNI

Over 370 alumni shared their **thoughts on how current Environmental Studies majors may enhance their education while at UCSB**. Here are just a few:

- Balance your 'book' knowledge with real-life experiences through internships.
- If you wish to go on to graduate school: Get to Know Your Faculty!
- Be a sponge. Absorb the wealth of knowledge that the professors have to offer.
- As with anything in life, you get out what you put into the experience.
- Be active in the community - UCSB, Isla Vista, Santa Barbara - Get out and get to know people, network!
- Be creative and willing to think outside the box when looking, finding, and defining your education.
- Don't get caught up in the doom and gloom attitude of some people in the environmental community. Maintain a sense of empowerment and optimism in order to continue working for what you believe is right.



- Put in the effort to get to know your teachers, your fellow students, the land and community around campus -- all will guide you on your path.
- Don't get too hung up on 'being' one thing when you 'grow up.' Life has a funny way of changing your plans.
- Challenge your assumptions. Be aware of accepting conclusions just because they correspond with yours.
- Write a senior thesis, it's a good experience and has great post-graduation marketability.
- Work hard, play harder! You only get your undergraduate degree once, so enjoy it everyday.
- Try everything at first and learn from every experience. You will find your closest friends and create your greatest memories from your own ambition.
- Don't get 'lost in the cracks' and do the bare minimum to graduate, this will not help you get a job out of school. Take advantage of opportunities to build your resume and your skills.
- ES is a very real world major! Employers want people who can think and write. They want people who can defend their ideas. ES offers you the opportunity to develop these skills, but you have to take advantage of them.

## 7. ES ALUMNI EMPLOYMENT DATA

Of the 504 total survey respondents, **455 (90.3%) were currently employed.**

Of the 455 employed, **352 (77.4%) said they considered their job to be "environmental."**

**Of the 49 (9.7%) who were unemployed,** 26 were current graduates students, 4 had become stay at home moms, 2 were retired, and only 11 were currently looking for employment or in the middle of a career change.

Alumni were asked to select an **employment category that best fit their current employer and job.** 455 alumni responded:

Category: All ES Alumni	#	% of 455
Private Sector	164	36.5%
Local Government	81	17.7%
Academia/Education	59	13.0%
Non Government	54	11.8%
Self Employed	46	10.0%
State Government	25	5.4%
Federal Government	22	4.9%
Other	4	0.9%

Category: Alumni w/Env. Jobs	#	% of 352
Private Sector	133	38.2%
Local Government	68	19.5%
Academia/Education	41	11.8%
Non Government	35	10.1%
Self Employed	30	8.6%
Federal Government	21	6.0%
State Government	21	6.0%
Other	3	0.9%

ES Alumni were also asked to **choose the annual salary range for which they qualified.** 388 responses were recorded and are included below.

Annual Salary	#	% of 388
\$0 to \$20,000	34	8.6%
\$21,000 to \$35,000	53	13.4%
\$36,000 to \$50,000	87	22.0%
\$51,000 to \$65,000	74	18.7%
\$66,000 to \$80,000	55	13.9%
\$81,000 to \$96,000	23	5.8%
More than \$96,000	69	17.5%

### Short list of ES Alumni's job titles and employers:

Job Title	Employer
Architect	Miller Hayashi Architects
Ecologist	U.S. Geological Survey
Senior Env. Engineer	Lowney Associate
President/Principal Planner	Urban Planning Concepts
District Superintendent	CA Dept. of Parks & Rec.
Associate Professor	Cal Poly San Luis Obispo
Aquatic Ecotoxicologist	Pacific Ecorisk
President	League of Conservation Voters
Air Pollution Specialist	CA Air Resources Board
Senior Attorney	Centers for Disease Control & Prevention
Director of Conservation	New England Aquarium
Photo Interpreter/GIS	Bureau of Reclamation
Democratic Legislative Staff	U.S. House of Reps. Committee on Resources
Vice President	Bonneville Environmental Foundation
Battalion Chief	USDA Forest Service
Manager	NASA Groundwater Cleanup
Superintendent, NPS	Lewis and Clark National Historical Park
Asst. Secretary of Resources	CA Resources Agency
Executive Director	Coalition for Sustainable

ES Alumni were asked to **select one job field which best described their current employment or job title**. 456 responses were recorded and the results are summarized below:

<b><u>Alumni Classified by Job Field</u></b>	<b><u>#</u></b>	<b><u>% of 456</u></b>
<b><u>Planning</u></b>	<b><u>103</u></b>	<b><u>22.6%</u></b>
Architecture/Design	2	
Comprehensive	16	
Environmental	42	
Land Use/Zoning	26	
Recreation	5	
Regional	2	
Transportation	10	
<b><u>Environmental Science</u></b>	<b><u>103</u></b>	<b><u>22.6%</u></b>
Air Quality	14	
Biology/Ecology	21	
Botany	3	
Energy	1	
Engineering	2	
Env. Health/Safety	11	
Fishery/Wildlife Mgt.	4	
Forestry	2	
GIS/Remote Sensing	11	
Hazardous Waste	2	
Hydrology	3	
Industrial Hygiene	1	
Mineral Resources	1	
Resource Conservation	8	
Solid Waste	4	
Water Quality	15	
<b><u>Education</u></b>	<b><u>58</u></b>	<b><u>12.7%</u></b>
Administration	7	
Camps/Outdoor	9	
Current Grad Student	6	
Environmental	6	
Instructor, College/University	11	
Teacher, Primary	10	
Teacher, Secondary	9	
<b><u>Miscellaneous</u></b>	<b><u>56</u></b>	<b><u>12.3%</u></b>
Agriculture/Horticulture	4	
Communications	3	
Computer Science	5	
Consulting	4	
Entertainment	4	
Health care	11	
Hospitality	3	
Media	1	
Public Safety	3	
<b><u>Business</u></b>	<b><u>43</u></b>	<b><u>9.4%</u></b>
Construction	7	
Economics	4	

Finance	7	
Green Product Sales/Services	7	
Insurance	5	
Land Management	1	
Real Estate	12	
<b><u>Law</u></b>	<b><u>29</u></b>	<b><u>6.4%</u></b>
Corporate	7	
Criminal	2	
Environmental	16	
Estate Planning	2	
Family	1	
Public Interest	1	
<b><u>Policy/Politics</u></b>	<b><u>26</u></b>	<b><u>5.7%</u></b>
Administrator	2	
Analyst	3	
Consultant	7	
Gov't Staff	5	
Lobbyist	5	
Politician	4	
<b><u>Other</u></b>	<b><u>20</u></b>	<b><u>4.4%</u></b>
<b><u>Env. Organizing/Fundraising</u></b>	<b><u>9</u></b>	<b><u>2.0%</u></b>
<b><u>Land/Wildlife Conservation</u></b>	<b><u>5</u></b>	<b><u>1.1%</u></b>
<b><u>Water Resource Management</u></b>	<b><u>4</u></b>	<b><u>0.9%</u></b>

## 8.0 ADDITIONAL COMMENTS BY ES ALUMNI

- I am very proud to have graduated from this school and this program.
- A pioneering program that was ahead of its time. My hat's off to those who conceived it & made it happen.
- Greatest major at the best school on the planet. Maybe I'm exaggerating, but it's close.
- I felt that I received an excellent education from faculty who were passionate about their beliefs.
- I greatly admire the ES Program's continuous development and improvement over the past 30+ years.
- I would do anything to do it all over again!
- I'd love to be a course instructor at UCSB ES; then my life would be complete! Also my wife was also '78 ES grad and our first son is 2001 UCSB ES grad.
- Please keep up the fantastic work! Many of my students have and are coming to UCSB to study environmental studies/science.
- The E.S. Program changed my life and provided a very good foundation for an interesting and varied professional career.

## Some Quotes From Alumni About UCSB's ES Program:

- UCSB's Environmental Studies Program not only excited me about working on environmental issues, but helped me develop tools to do so effectively.
- The ES Program inspired me to dedicate myself to improving the quality of life and the environment by encouraging the transition to a sustainable energy future. I will always be grateful for the opportunity!
- I learned a tremendous amount while in the ES Program, and was always very grateful that I had an opportunity to participate in such a broad-based program about the environment. To this day, I feel I have a broader perspective on environmental issues than my peers due solely to my ES Program education.
- After a decade away from the Program, I am surprised and elated how invaluable the program has been for my career and personal life. When I was going through the Program, I had no idea how I would apply much of the information gained from the courses. As the years go by, I am more thankful to those who touched my life during my ES days!
- ES provided me more practical skills than my Business/Economics double major. The caring faculty and students made all the difference. It is a values program worthy of support and protection.
- I am very proud to be an UCSB ES graduate. The ES Program provided me a valuable foundation for my environmental career. Through ES, I learned what it truly means to be an environmental specialist/professional. So many of my colleagues who came from other kinds of educational backgrounds do not understand how their careers are fundamentally rooted in the environmental movement.
- I have consistently found UCSB ES graduates to be the top candidates for positions for which I have been recruiting/hiring. My years in the ES Program stand out as a time of intense exploration, challenge, discovery, and satisfaction.
- The integrative approach of the program and the diversity of courses open to undergraduates were key factors in my success at grad school.
- You might mention to people who doubt the department's credibility that I have yet to regret in any way getting my degree in Environmental Studies. The broad science background has proven surprisingly useful; most companies are glad to teach you the specifics.
- I think the broad spectrum of insights has allowed for a true process to be attained for attacking problems. I've learned how to learn.
- I appreciated the staff, professors, fellow students and the overall experience of being an ES major at UCSB. I learned a lot, both in and out, of the classroom that I apply to my personal and professional life.
- I have used the best parts of my ES experience as templates for the current program I have designed for undergraduates at my campus (and previous elements I crafted while at UCLA and Stanford). In general ES gave me a wonderful interdisciplinary-focused appreciation for Environmental Challenges. I was vastly better prepared to understand, propose effective solutions to, and move beyond various environmental challenges than my peers who had not had an ES or ES-like preparation.

## **Pursue an academic internship via Environmental Studies Internship Program**

In 1973 the Environmental Studies Program initiated its own academic internship program (ESIP) to complement a student's classroom education with practical hands-on experience in their field of interest. Each year hundreds of ES and Hydrologic Sciences students received academic credit by completing internship positions locally, statewide, nationally, and internationally. There are dozens of local agencies and hundreds of non-local internship opportunities accessible to ES students. Combined with appropriate course work, internships provide a stepping stone to a number of careers in environmentally related fields. For more ESIP information visit the ES Internship webpage at <http://www.es.ucsb.edu/student/internships>

### **Some Example Agencies ES Students Have Interned with Include:**

#### **Local**

Cachuma Operations and Maintenance Board  
 California Solar  
 California State Fish and Game, SB Office  
 CALPIRG, UCSB Chapter  
 Channel Islands Marine and Wildlife Institute  
 Channel Islands National Marine Sanctuary  
 Cheadle Center Biodiversity and Ecological Restoration, UCSB  
 City of Lompoc, Solid Waste Division  
 City of Goleta, Planning and Development  
 City of Santa Barbara, Waste Management  
 City of Santa Barbara, Water Conservation  
 Community Environmental Council  
 County of Santa Barbara, Planning Division  
 County of Santa Barbara, Energy Division  
 Demo to Design, Architectural reUse  
 Direct Relief International  
 DUDEK Consulting  
 Elipz Lighting Inc.  
 Environmental Defense Center  
 Fairview Gardens Organic Farm  
 Gaviota Coast Conservancy  
 Goleta Sanitary District  
 Goleta Water District  
 Land Trust for Santa Barbara  
 Office of Assemblymember Das Williams  
 Office of Senator Hannah-Beth Jackson  
 Marine Science Institute, UCSB  
 Mesa Lane Partners  
 National Center for Ecological Analysis and Synthesis, UCSB  
 Nuclear Age Peace Foundation, SB  
 Patagonia Inc. Headquarters, Ventura  
 Plow to Porch Organics, Inc.  
 Santa Barbara Botanical Garden  
 Santa Barbara Channel Keeper  
 Santa Barbara Flood Control District  
 Santa Barbara Natural History Museum  
 Santa Barbara Wildlife Care Network  
 Sprout Up (Education for Next Generation)  
 Surfrider, Santa Barbara Chapter  
 UCSB Facilities Management, Energy Division  
 UCSB Sustainability Program  
 Ventura County Air Pollution Control Dist.  
 Wild Local Seafood Co.

#### **Non-Local Agencies**

Bureau of Land Management  
 CA Governor's Office of Planning/Research  
 CA Student Sustainability Coalition  
 League of Conservation Voters, D.C.  
 Monterey County Planning Department  
 National Wildlife Federation, D.C.  
 Rocky Mountain Institute  
 Santa Monica Mountains Natl. Recreation  
 Senator Dianne Feinstein, D.C.  
 Sea World, San Diego  
 Science Applications International, NASA  
 Tree People, Los Angeles  
 United Hemp Council  
 US Forestry Service  
 US President's Council on Env. Quality, D.C.  
 Yosemite National Park