

# Sustainability/Climate Change Program Task Force Report

Submitted April 4, 2008  
Proposed Action Plan added April 24, 2008

**Mission:** The University of San Diego's Catholic identity, with its grounding in Catholic Social Thought and its emphasis on educating ethical citizens, provides unique opportunities for exploring the social, economic, and environmental aspects of sustainability. The university is building environmental consciousness on the USD campus, its extended family, and the community. USD is committed to promoting sustainable lifestyles; expanding curricular and scholarship development on sustainability and climate change; and creating a green campus through facilities, operations, and business practices. "Be Blue, Go Green!"

## **Task Force:**

### **Chairs**

|                             |  |
|-----------------------------|--|
| Michel Boudrias (chair)     | Associate Professor: Marine Science and Environmental Studies  |
| Andrew Gorrell (vice chair) | Undergraduate: Associated Students Director for Sustainability |

### **Members**

|                        |   |
|------------------------|---|
| Scott Anders           | Director of EPIC: School of Law                               |
| Dawn Anderson          | Director: Procurement/University Copy and Graphics            |
| Sandra Ciallella '87   | Assistant Vice President: Development                         |
| Todd Headden           | JD Student: School of Law                                     |
| Roy Heynderickx        | Vice President: Finance and Administration                    |
| Dayanne Izmirian       | Assistant Dean: Residence Life                                |
| Cel Johnson            | Executive Director: Institutional Research and Planning       |
| Michael Lovette-Colyer | Director: University Ministry                                 |
| André Mallié           | Executive Director: Auxiliary Services                        |
| Roger Manion           | Assistant Vice President: Facilities Management               |
| Lindsey McDougle       | Graduate Student: School of Leadership and Education Sciences |
| Andrew Narwold         | Professor: School of Business Administration                  |
| Mary Whelan '86        | Director: University Design                                   |
| Greg Zackowski '84,'86 | Executive Director: University Center Operations              |

# Sustainability/Climate Change Task Force Report

## Executive Summary

The Sustainability/Climate Change Program Task Force first met on November 2, 2007, charged by President Lyons to “inventory educational, research operations, facilities initiatives, and service learning experiences currently in place at USD that support sustainability and/or climate change programs; survey best practices at other universities; and develop a strategic plan by March 2008 that will encompass the elements of education, research, service, and operations.”

As a Catholic university, USD has a special obligation to care for God's creation. The intersection of sustainability, climate change, and environmental issues with theological, ethical, human rights, and social issues has been highlighted by recent public lectures sponsored by the Catholic Social Thought committee and the distinguished lecture series sponsored by the Joan B. Kroc Institute for Peace & Justice.

During the past five months, this task force has focused on identifying existing programs and practices at USD related to sustainability/climate change and working with campus constituents to discuss possible short-term and long-term strategies that could position our campus for greater sustainability initiatives in the future. In this short time, we have discovered an amazing amount of energy and interest in the topic of sustainability, and suggestions have come from all over campus.

USD has already become a participant in the national sustainability movement. The university has joined AASHE, the Association for the Advancement Sustainability in Higher Education, and several members of the task force have either attended conferences to learn more about sustainability or talked to sustainability coordinators at other schools. One recent conference demonstrated that, although we lag some schools in establishing sustainability programs, many universities are just beginning the process and face similar obstacles in organizing and implementing sustainability initiatives.

Compared to other WCC schools (Santa Clara, Gonzaga, St. Mary's, Pepperdine), we appear to be well on our way to developing a comprehensive plan. Compared to local universities (SDSU, CSU-San Marcos, UCSD, Point Loma Nazarene), we have much work ahead of us to catch up to their organizational frameworks and their student and employee programs. Fortunately, USD can draw upon its own unique attributes to carve out distinctive niches. Bringing key players together in this initial task force has generated a level of cooperation and shared vision that positions us well for future endeavors.

This report includes two documents:

- The “Inventory of Sustainable Practices at USD” indicates that many faculty have already established academic reputations in diverse areas related to sustainability, climate change, and the environment, and many departments have already initiated sustainable practices. By its very nature, this inventory is already somewhat outdated. It is a dynamic document that will continue to grow.
- The “Outline of Sustainability Initiatives” presents a wide variety of ideas, ranging from simple to complex, which have been collected and discussed by the task force during the past five months. The intent of this outline is to highlight the many different approaches we might take in our quest to improve sustainable practices at USD.

Our review of best practices confirmed that successful implementation of an ongoing, viable sustainability program must proceed intelligently and intentionally. Although there is still much work to be done in surveying the extensive catalog of best practices, the task force has focused on the most important: practices involved in creating a well-developed strategic plan with a realistic timeline and an organizational structure to support its implementation. The “Outline of Sustainability Initiatives” lists many possible options, but existing resources simply will not allow us to implement everything included. The resource most frequently identified is “staff time,” but USD cannot implement all of the proposed ideas with existing staff. In particular, task force members cannot continue their efforts at the current level without neglecting the jobs they were hired to do.

In developing the strategic plan, we must select and prioritize the directions most practical and promising for us. Several of the suggested initiatives can be accomplished quickly with existing resources to generate good will on and off campus. More complex initiatives will require the visionary perspective to make short-term investments that yield desired long-term benefits, both economically and academically. Our “Outline” contains the following sections:

- **Academics:** USD's size and academic composition offer unique opportunities to create distinctive interdisciplinary collaborations. Hands-on experiential education promotes interaction between faculty and students, both in classes and research projects. At the undergraduate level, the concepts of sustainability and climate change can be addressed in the core curriculum from multiple perspectives, including science, ethics, social justice, history, religion, and economics. At the graduate level, we have the potential to integrate our courses into existing and proposed programs and provide on-campus job opportunities and off-campus connections for internships, employment, and postgraduate experiences.
- **Outreach and Community Relations:** USD's existing efforts in sustainability, as well as new programs and practices we develop and expand, should be better publicized to the campus community and beyond. We must promote our commitment to sustainability beyond the campus by hosting our events in a sustainable manner, providing incentives and awards for changes in behavior, and creating opportunities for students and staff to participate in sustainability-related events off campus.
- **Operations Management, Auxiliaries:** USD has many opportunities to change institutional and individual behavior by purchasing more green supplies and materials, offering healthier and more sustainable alternatives for campus dining, recycling materials currently discarded, and coordinating purchases across departments. Concerted efforts can lead to financial savings for the university as well as reinforcing the sense of USD as an integrated university rather than a collection of units.
- **Operations Management, Physical Plant:** The San Diego region will face increasing pressures on its energy and water supplies in the near future. Our challenge is to manage the university's use of these resources to ensure operational sustainability in the face of changing supplies. Of all the areas covered by this report, these will require the greatest amount of planning and investment, yet have the potential to yield the highest dividends in both sustainability and future savings.
- **Campus Life:** Sustainability begins at home, and our campus home must showcase our commitment to embracing sustainable practices. To this end, we must educate students, faculty, and staff using targeted communications, incentives, and training to raise awareness of our many opportunities to use less and recycle more. Desired

behavioral changes consistent with our mission will not occur among people unconvinced of their importance.

- **Executive Council:** Some of the biggest decisions to shape USD's future cannot be made by an individual director, a task force, or an advisory board. Only the Executive Council and the Board of Trustees can authorize major expenditures to save energy and redirect investments.

A strategic plan for sustainability requires accountability. The task force will continue to meet to maintain the existing momentum and ensure a smooth transition to the advisory board appointed by the Executive Council. Ultimately, however, an advisory board alone will not suffice. Successful institutional sustainability programs are directed by individuals with the authority to make decisions and the power to enforce them.

A successful strategic plan also requires carefully directed infusions of funds to support implementation at multiple levels as well as targeted educational programs to effect changes in behavior and foster an increased spirit of cooperation across disciplines and operational units. Because sustainability and concern for the environment are at the heart of our mission, we must avoid short-sighted decision making at all costs. USD has unique attributes that will enable us to develop a distinct presence in sustainability locally, regionally, and nationally. It is the shared hope of this task force that the attached report will be the essential first step in making this vision a reality.

## Proposed Two-year Action Plan

This action plan focuses on top priorities in major areas. Please refer to the comprehensive list of suggested incentives for ideas of more limited scope and ideas with a longer timeline.

| <b>ACADEMICS</b>  |  |                |
|---|--|----------------|
| <b>Top Priority: Increase and integrate sustainability into course offerings, programs, and research.</b>   |  |                |
| <b>Initiatives:</b>   | <b>Resources</b>   | <b>Time</b>    |
| • Reinstate the undergraduate Environmental Studies major.  | • Faculty time   | • <b>12/08</b> |
| • Appoint a faculty director to coordinate a seminar series and academic sustainability/climate change efforts, including academic events for Focus the Nation and Earth Week.        | • Reassigned time (6 units) plus stipend; four seminars per year at ~\$5,000/speaker | • <b>12/08</b> |
| • Sponsor faculty workshops to present ideas for incorporating sustainability/climate change into courses.  | • Staff time to develop workshop, plus stipends for 10 faculty (\$10,000)            | • <b>12/09</b> |
| • Increase the number of interdisciplinary sustainability/climate change courses offered within and among schools, including community service-learning components where appropriate. | • Reassigned time for 3 faculty (\$15,000)   | • <b>12/09</b> |
| • Designate student research support for summer projects.   | • 3 students, 3 faculty, and supplies (\$25,000)                                     | • <b>12/09</b> |
| • Establish one or more journals for research in sustainability.  | • Faculty time; cost to publish  | • <b>12/09</b> |
| <b>OUTREACH AND COMMUNITY RELATIONS</b>   |  |                |
| <b>Top Priority: Increase public awareness of USD's sustainability efforts on and off campus.</b>   |  |                |
| <b>Initiatives:</b>   | <b>Resources</b>   | <b>Time</b>    |
| • Maintain production of the monthly Sustainability Newsletter.   | • Staff time   | • <b>Begun</b> |
| • Develop and maintain a sustainability website (with logo links on USD home page and MySanDiego landing page).   | • Staff time   | • <b>12/08</b> |
| • Collaborate with students and faculty to develop a strategic plan and framework for Earth Week, Focus the Nation, and other major campus events.                                    | • Staff time   | • <b>12/08</b> |
| • Promote paperless transactions and use of email.  | • Staff time   | • <b>12/08</b> |
| • Raise funds for approved academic and institutional priorities; work with faculty and staff to identify projects.   | • Staff time   | • <b>12/09</b> |
| <b>OPERATIONS MANAGEMENT, PHYSICAL PLANT</b>  |  |                |
| <b>Top Priorities: Decrease campus energy and water consumption; increase recycling.</b>  |  |                |
| <b>Initiatives:</b>   | <b>Resources</b>   | <b>Time</b>    |
| • Install indoor and outdoor recycling containers with a one-to-one ratio to trash bins.  | • Staff time; cost of containers (\$75,000-\$100,000)                                | • <b>09/08</b> |
| • Conduct a comprehensive audit of campus energy and water consumption, and develop a master plan for conservation and sustainability (e.g., HVAC efficiency, CFL and/or LED lights). | • \$80,000 for audit; staff time to develop master plan                              | • <b>09/08</b> |
| • Establish green standards for construction, maintenance materials, finishes, and furnishings.   | • Staff time; potentially higher costs of materials                                  | • <b>12/08</b> |
| • Bring Student Life Pavilion to LEED Silver standards at minimum.  | • Staff time for paperwork; additional \$400,000-\$700,000                           | • <b>12/09</b> |
| • Investigate the use of renewable energy generated on or off campus (e.g., solar panels, wind turbines).   | • Staff time; cost of materials  | • <b>12/09</b> |

| <b>OPERATIONS MANAGEMENT, AUXILIARIES</b>  |   |                |
|--|---|----------------|
| <b>Top Priority: Purchase more sustainable products in more sustainable ways.</b>  |   |                |
| <b>Initiatives:</b>  | <b>Resources</b>  | <b>Time</b>    |
| • Establish procedures for purchasing Energy Star certified products and printers that meet Forest Stewardship Council chain-of-custody certification.                                 | • Staff time; potentially higher costs of products                          | • <b>Begun</b> |
| • Buy FSC-certified recycled paper in bulk and sell through University Copy & Graphics and Bookstore.  | • Storage space; savings will result from bulk purchases                    | • <b>Begun</b> |
| • Donate leftover food products to local food bank.  | • Staff time; liability release   | • <b>12/08</b> |
| • Offer sustainable clothing, fair trade, and recycled products purchased from sweatshop-free vendors through the Bookstore.   | • Staff time to identify vendors  | • <b>12/08</b> |
| • Coordinate purchase of green cleaning supplies for Facilities, JCP, KIPJ, and Law.   | • Staff time  | • <b>12/08</b> |
| • Increase purchase of foods locally grown, organic, and/or fair trade, such as partnering with Community Alliance with Family Farmers to purchase locally grown organic products.     | • Staff time; some of this food may be more expensive due to limited supply | • <b>12/09</b> |
| <b>CAMPUS LIFE</b>   |   |                |
| <b>Top Priorities: Raise awareness and change behavior of students, faculty, and staff.</b>  |   |                |
| <b>Initiatives:</b>  | <b>Resources</b>  | <b>Time</b>    |
| • Develop programs and collateral materials to educate students about waste awareness, water conservation, and recycling.  | • Staff time; cost of materials and incentives                              | • <b>Begun</b> |
| • Collaborate with Student Affairs and Human Resources to produce a "Welcome to USD" package that encourages sustainability.   | • Staff time; cost of components (~\$12,000 for students)                   | • <b>08/08</b> |
| • Produce educational materials for our campus and include sustainability as a topic in student and employee orientations.   | • Staff time; cost of materials and incentives                              | • <b>12/08</b> |
| • Increase participation in Focus the Nation, Earth Week, RecycleMania, Roots & Shoots, Outdoor Adventures, and other student-centered sustainability events.                          | • Staff time; cost of materials and incentives                              | • <b>12/08</b> |
| • Promote the relationship between sustainability with Catholic Social Thought by offering programs focused on the connection.   | • Staff time  | • <b>12/08</b> |
| • Create a standing committee to work with Human Resources and Parking Services to investigate transportation issues, such as Zip cars, city buses, biking, street signs, and parking. | • Staff time  | • <b>12/08</b> |
| • Establish a sustainability Residential Living Community for sophomores, juniors, and seniors.  | • One new staff person, plus existing personnel                             | • <b>12/09</b> |
| <b>EXECUTIVE COUNCIL</b>   |   |                |
| <b>Top Priority: Establish an organizational structure to support sustainability efforts.</b>  |   |                |
| <b>Initiatives:</b>  | <b>Resources</b>  | <b>Time</b>    |
| • Maintain membership in AASHE (Association for the Advancement of Sustainability in Higher Education) and participate in sustainability conferences.                                  | • \$1,000 annually, plus travel funds for two people to attend conference   | • <b>Begun</b> |
| • Appoint a presidential advisory board.   | • Staff time  | • <b>12/08</b> |
| • Establish a campus sustainability office with a full-time director, a half-time coordinator, and graduate student support.   | • Budget, office space, and graduate student support                        | • <b>12/08</b> |
| • Establish procedures for offsetting greenhouse gas emissions associated with air travel for university business.   | • Staff time; will probably increase cost of travel                         | • <b>12/08</b> |
| • Sign the Presidents Climate Challenge.   | • Funding to significantly reduce USD's carbon footprint                    | • <b>12/09</b> |

## Outline of Sustainability Initiatives

| ACADEMICS   |   |  |
|---|---|--|
| <p><b>Objective: Increase and integrate sustainability into course offerings, programs, and research, particularly in areas where USD can be distinctive and distinguished locally, nationally, and internationally.</b></p>            |   |  |
| Suggested Initiatives:  | Resources   | Time   |
| <p>— <b>Teaching</b> —</p>  |   |  |
| <ul style="list-style-type: none"> <li>• Reinstate the undergraduate Environmental Studies major.</li> </ul>  | <ul style="list-style-type: none"> <li>• New faculty member starts Fall 2008; curriculum must be approved.</li> </ul>                               | <ul style="list-style-type: none"> <li>• <b>Begun</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Appoint a faculty director to coordinate academic sustainability/climate change efforts.</li> </ul>  | <ul style="list-style-type: none"> <li>• Reassigned time (6 units) plus stipend</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Identify and coordinate all courses and programs in the Undergraduate and Graduate Bulletins related to sustainability/climate change.</li> </ul>  | <ul style="list-style-type: none"> <li>• Summer support for faculty member (\$5,000)</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Plan academic events for Focus the Nation and Earth Week.</li> </ul>   | <ul style="list-style-type: none"> <li>• Faculty time for planning</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Place students in internships, service-learning projects, and jobs with sustainability-friendly businesses, organizations, and government agencies.</li> </ul>                                 | <ul style="list-style-type: none"> <li>• Staff time</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Establish a graduate worker program to assist all departments with sustainability/climate change efforts (e.g. energy inventories, coordination of student events, etc.).</li> </ul>           | <ul style="list-style-type: none"> <li>• 1-3 graduate worker positions at 20hrs/week (\$11,000 per position for full year)</li> </ul>               | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Sponsor faculty workshops to present ideas for incorporating sustainability/climate change into courses.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time to develop workshop, plus stipends for 10 faculty (\$10,000)</li> </ul>                         | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Increase the number of interdisciplinary sustainability/climate change courses offered within and among schools, including community service-learning components where appropriate.</li> </ul> | <ul style="list-style-type: none"> <li>• Reassigned time for 3 faculty (\$15,000)</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Establish a seminar or distinguished lecture series discussing sustainability/climate change issues.</li> </ul>  | <ul style="list-style-type: none"> <li>• Eight seminars per year at ~\$5,000 per speaker/event</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Establish an "environmental literacy" core requirement.</li> </ul>   | <ul style="list-style-type: none"> <li>• Endless meetings and workshops</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Develop an "environmental certificate" program.</li> </ul>   | <ul style="list-style-type: none"> <li>• Endless meetings and workshops</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Develop an interdisciplinary graduate degree in Environmental Studies, with specializations in management, policy, science, law, etc.</li> </ul>   | <ul style="list-style-type: none"> <li>• Coordinate existing courses and faculty; graduate program director (3 units reassigned time)</li> </ul>    | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Integrate graduate environmental courses into all Peace and Justice programs.</li> </ul>   | <ul style="list-style-type: none"> <li>• Coordinate existing courses and faculty</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <p>— <b>Research</b> —</p>  |   |  |
| <ul style="list-style-type: none"> <li>• Seek grant, contract, and foundation support for sustainability projects.</li> </ul>   | <ul style="list-style-type: none"> <li>• Faculty time</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Increase financial support and publicity for existing projects.</li> </ul>   | <ul style="list-style-type: none"> <li>• Additional travel funds for targeted conferences</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Increase number of interdisciplinary projects.</li> </ul>  | <ul style="list-style-type: none"> <li>• Endless meetings and workshops</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Designate student research support for summer projects.</li> </ul>   | <ul style="list-style-type: none"> <li>• 3 students, 3 faculty, and supplies (\$25,000)</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Establish one or more journals for research in sustainability.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time to develop editorial procedures; other resources dependent upon level of involvement</li> </ul> | <ul style="list-style-type: none"> <li>• <b>12/09</b></li> </ul>   |

## Outline of Sustainability Initiatives

### **Possible Metrics for Measuring Success:**

- Number of sustainability/climate change courses offered.
- Number of students enrolled in sustainability/climate change classes.
- Number of faculty research papers published on sustainability/climate change issues.
- Number of sustainability/climate change grants and contracts secured by faculty.
- Number of faculty teaching and researching in sustainability/climate change areas.

## Outline of Sustainability Initiatives

| OUTREACH AND COMMUNITY RELATIONS   |  |                  |
|--|--|------------------|
| <b>Objective: Promote sustainability on and off campus, and increase public awareness of USD's accomplishments and continuing efforts.</b>   |  |                  |
| Suggested Initiatives:   | Resources                                    | Time             |
| <b>— <i>Publicity</i> —</b>  |  |                  |
| • Develop and promote a USD sustainability logo.   | • Staff time                                 | • <b>Done</b>    |
| • Produce a monthly sustainability e-newsletter.   | • Staff time                                 | • <b>Begun</b>   |
| • Include a sustainability section or article in every issue of <i>USD Magazine</i> .  | • Staff time                                 | • <b>Begun</b>   |
| • Organize a "Great Ideas" sustainability contest for faculty and staff, with awards presented at the summer picnic.   | • Staff time                                 | • <b>Begun</b>   |
| • Develop and maintain a sustainability website (with logo links on USD home page and MySanDiego landing page).  | • Staff time                                 | • <b>12/08</b>   |
| • Publish USD's sustainability action plan on the website.   | • Staff time                                 | • <b>12/08</b>   |
| • Collaborate with students and faculty to develop a strategic plan and framework for Earth Week.  | • Staff time                                 | • <b>12/08</b>   |
| • Collaborate with students and faculty to develop a strategic plan and framework for Focus the Nation.  | • Staff time                                 | • <b>12/08</b>   |
| • Incorporate sustainability education and commitment into parent orientations and programming, Family Weekend, Grandparents Weekend, Homecoming, 60th Anniversary Celebration, and other campus events. | • Staff time                                 | • <b>12/08</b>   |
| • Develop and implement an internal public relations plan.   | • Staff time                                 | • <b>06/09</b>   |
| • Develop and implement an external public relations plan.   | • Staff time                                 | • <b>06/09</b>   |
| • Incorporate a "sustainability asterisk" (our "Be Blue, Go Green" logo) into the University Events Calendar to highlight campus events addressing sustainability issues.                                | • Staff time                                 | • <b>06/09</b>   |
| • Publish USD's action plan, inventory of greenhouse gases, and progress reports on the AASHE website.   | • Staff time                                 | • <b>12/10</b>   |
| • Partner with local organizations or businesses that incorporate sustainable practices to offer brown bag lectures to educate and update students, faculty, and staff.                                  | • Staff time                                 | • <b>3-5 yrs</b> |
| • Publish an issue of <i>USD Magazine</i> devoted to sustainability.   | • Staff time                                 | • <b>3-5 yrs</b> |
| • Hold an annual "State of the Environment" symposium featuring experts in the field (academic, industry, commercial).   | • Faculty and staff time; possible honoraria | • <b>3-5 yrs</b> |
| • Dedicate an annual "Be Blue, Go Green" day (perhaps in the fall) to educate the campus community about new technologies or ways of living that are earth friendly.                                     | • Staff time                                 | • <b>3-5 yrs</b> |
| <b>— <i>Conservation</i> —</b>   |  |                  |
| • Promote paperless or reduced paper practices across campus.  | • Staff time                                 | • <b>Begun</b>   |
| • Launch a campaign to increase the number of alumni e-mail addresses on file.   | • Staff time                                 | • <b>Begun</b>   |
| • Promote the use of e-mail for transmission of information of all types; include a footer message in all e-mails to "think before you print."   | • Staff time                                 | • <b>12/08</b>   |
| • Collaborate with other offices to produce a "Welcome to USD" package that encourages sustainability (e.g., shopping bag, travel mug, utensils).  | • Staff time; cost of components             | • <b>06/09</b>   |
| • Inventory publications and identify those that can be distributed electronically.  | • Staff time                                 | • <b>06/09</b>   |

## Outline of Sustainability Initiatives

|  |   |  |
|--|---|--|
| <b>— Fundraising/Development —</b>   |   |  |
| <ul style="list-style-type: none"> <li>• Coordinate efforts for corporate sponsorship of campus sustainability programs.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time</li> </ul>                    | <ul style="list-style-type: none"> <li>• <b>Begun</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Develop and promote a variety of sustainability-oriented gifts, promotional items, and give-aways to be used at various campus events.</li> </ul>   | <ul style="list-style-type: none"> <li>• Staff time; cost of materials</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Begun</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Raise funds for approved environmental projects; work with faculty and staff to identify projects.</li> </ul>   | <ul style="list-style-type: none"> <li>• Staff time</li> </ul>                    | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Collaborate with other offices to identify vendors to sponsor mugs, t-shirts, etc., with the USD sustainability logo.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time</li> </ul>                    | <ul style="list-style-type: none"> <li>• <b>06/09</b></li> </ul> |
| <p><b>Possible Metrics for Measuring Success:</b></p> <ul style="list-style-type: none"> <li>• Number of "hits" on the sustainability website.</li> <li>• Number of alumni e-mail addresses on file.</li> <li>• Number of publications converted from print to e-mail.</li> <li>• Comments and suggestions received about newsletter.</li> <li>• Dollars raised for sustainability projects and programs.</li> </ul> |   |  |

## Outline of Sustainability Initiatives

| OPERATIONS MANAGEMENT, PHYSICAL PLANT  |  |                  |
|--|--|------------------|
| <p><b>Objective: Day-to-day campus operations, by nature, create environmental impacts. The overall objective is to reduce these impacts by reducing energy consumption, water use, transportation impacts, waste streams, and constructing environmentally sound buildings.</b></p> |  |                  |
| Suggested Initiatives:   | Resources  | Time             |
| <b>— Energy —</b>  |  |                  |
| • Conduct a comprehensive assessment of campus energy consumption.   | • \$40,000 for comprehensive study                                       | • <b>Begun</b>   |
| • Develop a master plan for energy conservation and sustainability.  | • Endless meetings   | • <b>12/08</b>   |
| • Identify potential sources of "green" power.   | • Staff time   | • <b>12/08</b>   |
| • Inventory greenhouse gas emissions and set reduction targets.  | • Staff time   | • <b>12/08</b>   |
| • Pursue all appropriate utility energy partnerships and incentive programs.   | • Staff time; potential matching funds.                                  | • <b>12/09</b>   |
| • Investigate the use of solar panels on flat roofs of existing buildings.   | • Staff time; cost of materials  | • <b>12/09</b>   |
| • Retrocommission existing buildings.  | • Staff time; cost of materials  | • <b>3-5 yrs</b> |
| • Investigate the feasibility of replacing incandescent lights with compact fluorescent lights in all buildings, including specialty lighting.   | • Staff time; cost of lights   | • <b>3-5 yrs</b> |
| <b>— Water —</b>   |  |                  |
| • Develop a water-efficient landscaping and irrigation plan, including centralized automated campus irrigation system and drip irrigation with moisture sensors.   | • \$10,000 for system  | • <b>Begun</b>   |
| • Conduct comprehensive assessment to quantify campus water use, develop sustainable water strategic plan, and establish numerical goals for water use reductions on campus.   | • Included as part of energy conservation and sustainability study above | • <b>Begun</b>   |
| • Replace existing toilets and urinals with ultra-low-flow alternatives with assistance from Metropolitan Water District of Southern California.   | • Possible institutional support funds                                   | • <b>12/08</b>   |
| • Conduct campus wide public water conservation education programs, including a water conservation education website with information on campus consumption and reduction measures.  | • Staff, student time  | • <b>12/09</b>   |
| • Develop low-water landscape guidelines, including xeriscaping.   | • \$2,500 for plants   | • <b>12/09</b>   |
| • Install water efficient equipment in the Campus Dining Service facilities.   | • Cost of equipment  | • <b>12/09</b>   |
| • Install water metering to provide data on consumption and cost.  | • Cost of equipment; staff time to monitor                               | • <b>3-5 yrs</b> |
| <b>— Waste Management —</b>  |  |                  |
| • Install outdoor recycling containers with a one-to-one ratio to trash bins.  | • Cost of containers   | • <b>12/08</b>   |
| • Ensure that green wastes on all parts of campus are recycled.  | • Staff time   | • <b>12/08</b>   |
| • Increase percentage of recycled material on campus, including paper, glass, tin, plastic, metal, and cardboard.  | • Staff time to handle increase  | • <b>12/08</b>   |
| • Establish a protocol for more comprehensive e-waste disposal.  | • Staff time   | • <b>12/08</b>   |
| • Work toward greater consistency of internal recycling containers with respect to size, shape, and instructions printed on the containers.  | • Staff time; cost of additional containers                              | • <b>12/09</b>   |
| • Remove all EPA-31 chemical wastes from campus.   | • Staff time; cost of materials  | • <b>3-5 yrs</b> |

## Outline of Sustainability Initiatives

| <b>— Construction —</b>  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>• Establish green standards for maintenance materials, finishes, and furnishings (e.g, no-VOC paints, formaldehyde-free carpets).</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time; potentially higher costs of materials</li> </ul>     | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Provide training for a Facilities staff member to become a LEED Accredited Professional.</li> </ul>   | <ul style="list-style-type: none"> <li>• Staff time; cost of training</li> </ul>                          | <ul style="list-style-type: none"> <li>• <b>12/08</b></li> </ul>   |
| <ul style="list-style-type: none"> <li>• Require ALL new buildings and renovations over \$50,000 to meet LEED Silver standards at minimum.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time for paperwork; increased construction cost</li> </ul> | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Choose contractors and architects with LEED Accredited Professionals on staff for new construction and major renovation projects.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time</li> </ul>  | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Establish long-term plan to retrofit existing buildings to appropriate LEED standards.</li> </ul>   | <ul style="list-style-type: none"> <li>• Staff time for paperwork; increased construction cost</li> </ul> | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Investigate potential to develop a net zero energy building project at USD.</li> </ul>  | <ul style="list-style-type: none"> <li>• Staff time; consulting fees</li> </ul>                           | <ul style="list-style-type: none"> <li>• <b>3-5 yrs</b></li> </ul> |
| <p><b>Possible Metrics for Measuring Success:</b></p> <ul style="list-style-type: none"> <li>• Percentage of power obtained from green sources.</li> <li>• Level of greenhouse gas emissions.</li> <li>• Total campus water consumption (gallons per year).</li> <li>• Per capita water consumption (gallons/person/year).</li> <li>• Water use by building/facility (gallons/building/year).</li> <li>• Water consumption by end-use (irrigation, residence hall, etc.).</li> </ul> |   |  |

## Outline of Sustainability Initiatives

| OPERATIONS MANAGEMENT, AUXILIARIES   |   |             |
|--|---|-------------|
| <b>Objective: Reduce USD's impact on the environment by decreasing waste, instilling healthy habits, reusing materials, and making "green" purchases.</b>                          |   |             |
| <b>Suggested Initiatives:</b>  | <b>Resources</b>  | <b>Time</b> |
| <b>— Procurement —</b>   |   |             |
| • Establish sustainability criteria in procurement procedures; partner with green companies.   | • Staff time  | • 12/08     |
| • Establish procedures for purchasing Energy Star certified products and equipment, such as clothes washers, refrigerators, etc.   | • Staff time  | • 12/08     |
| • Reduce delivery of paper and office supplies from three days to one day per week.  | • Minimal staff time to make arrangements                                   | • 12/08     |
| • Work with office supply vendor to create a green web pages for USD buyers.   | • Minimal staff time to make arrangements                                   | • 12/08     |
| • Work with HR to create a flash drive for materials to distribute at orientation  | • Staff time, cost of flash drives  | • 12/08     |
| • Buy recycled paper by truckload and sell through University Copy & Graphics and Bookstore.   | • Storage space; savings will result from bulk purchases                    | • 12/08     |
| • Establish a toner cartridge recycling program.   | • Staff time  | • 12/08     |
| • Purchase only printers that meet Forest Stewardship Council chain-of-custody certification.  | • Staff time; potential increase in cost of printers                        | • 12/09     |
| • Coordinate purchase of green cleaning supplies (e.g. Facilities, JCP, KIPJ, and Law).  | • Staff time  | • 12/09     |
| • Inventory, store, track, and reuse furniture.  | • Storage; staff time   | • 3-5 yrs   |
| <b>— Dining and Food Services —</b>  |   |             |
| • Establish reusable mug program in retail dining locations and Bookstore.   | • Cost of incentive offered for reusing the mug                             | • Done      |
| • Establish organic, fair trade, customized office coffee program in KIPJ and SOLES.   | • Reduced cost of coffee service  | • Done      |
| • Increase use of biodegradable disposable goods.  | • Biodegradable goods slightly more expensive                               | • Begun     |
| • Reduce packaging waste by buying more food in bulk (currently coffee).   | • Probable cost savings   | • Begun     |
| • Donate leftover food products to local food bank (requires signing a liability release).   | • Staff time  | • 12/08     |
| • Provide recycle bins at all campus events.   | • Staff time; cost of materials   | • 12/08     |
| • Expand campus locations offering organic, vegetarian, and vegan options.   | • Minimal staff time  | 12/08       |
| • Serve made-to-order food portions to reduce food waste.  | • Minimal staff time  | 12/08       |
| • Increase purchase of foods locally grown, organic, and/or fair trade, such as partnering with Community Alliance with Family Farmers to purchase locally grown organic products. | • Staff time; some of this food may be more expensive due to limited supply | • 12/09     |
| • Increase percent of reusable dishware to reduce paper waste.   | • Purchase additional china; purchase less disposable.                      | • 12/09     |
| • Convert dining facilities to trayless to reduce food waste.  | • Staff time for training   | • 12/09     |
| • Install system to reduce kitchen waste to liquid.  | • Cost of machine and installation (Student Life Pavilion)                  | • 12/09     |
| • Create a campus community garden on Tecolote Canyon hillside and purchase produce from students.   | • Cost of seeds and water, maintenance of land                              | • 12/09     |
| • Establish roof gardens on Student Life Pavilion.   | • Cost of seeds and special irrigation facilities                           | • 12/09     |
| • Produce biodiesel fuel from kitchen grease waste for use in diesel-powered engines on campus (e.g., lawnmowers, carts, trams).   | • Cost of machine to convert grease; savings in disposal fees               | • 3-5 yrs   |

## Outline of Sustainability Initiatives

|  |  |         |
|--|--|---------|
| <b>— Bookstore —</b>   |  |         |
| • Purchase apparel from sweatshop-free vendors.  | • Staff time to identify vendors   | • 12/08 |
| • Offer fair trade and recycled products.  | • Staff time to identify vendors   | • 12/08 |
| • Offer a line of sustainable clothing and other products (using organic cotton, soybean fabrics, etc.)  | • Staff time to identify vendors   | • 12/08 |
| • Acquire a toner cartridge refill machine and provide a refill service for campus departments.  | • Cost of machine and staff time; savings will result from reduced cartridge purchases | • 12/09 |
| <b>— Mail Center —</b>   |  |         |
| • Recycle unsolicited advertisements that are not distributed.   | • Staff time   | • Done  |
| • Investigate the feasibility of using sustainable inks for postage (possible postal restrictions).  | • Staff time   | 12/08   |
| • Eliminate campus flyers sent to departmental mailboxes by promoting electronic notification.   | • Staff time   | • 12/09 |
| • Clean up mail addresses of students who have left USD but still have mail delivered.   | • Staff time; outside assistance   | • 12/09 |
| <b>Possible Metrics for Measuring Success:</b>   |  |         |
| <ul style="list-style-type: none"> <li>• Percent of food products acquired locally.</li> <li>• Percent of dishware used that is reusable.</li> <li>• Percent of sustainable clothing purchased.</li> <li>• Percent of fair trade and recycled products purchased.</li> <li>• Gallons of biodiesel fuel used.</li> <li>• Percent of cleaning products that are green.</li> <li>• Number of toner cartridges recycled.</li> <li>• Number of departments purchasing recycled paper through Bookstore and University Copy &amp; Graphics.</li> </ul> |  |         |

## Outline of Sustainability Initiatives

| CAMPUS LIFE   |   |                  |
|---|---|------------------|
| <p><b>Objective: Educate and encourage students, faculty, and staff to work together to create a more sustainable environment on the USD campus and beyond.</b></p>                                   |   |                  |
| <b>Suggested Initiatives:</b>   | <b>Resources</b>  | <b>Time</b>      |
| — <i>Everyone</i> —   |   |                  |
| • Continue to reduce paper to market campus events.   | • Increased use of MySanDiego portal, marquee signs, Facebook, LCD monitors                       | • <b>Begun</b>   |
| • Continue to include environmental and climate change topics in the annual Social Issues conference.   | • Staff time to organize  | • <b>Begun</b>   |
| • Include sustainability as a topic in student and employee orientations.   | • Staff time; cost of materials and incentives  | • <b>12/08</b>   |
| • Produce educational materials for our campus.   | • Some fixed annual costs   | • <b>12/08</b>   |
| • Coordinate the efforts of various environmental groups on campus.   | • Minimal cost, student time  | • <b>12/08</b>   |
| • Specify sustainability responsibilities in selected position descriptions.  | • Supervisor time   | • <b>12/08</b>   |
| • Include prayers for creation in each university-wide liturgy, including the Mass of the Holy Spirit, the All Faith Service, and the Baccalaureate Masses.   | • Minimal staff time  | • <b>12/08</b>   |
| • Promote the relationship between sustainability with Catholic Social Thought by offering at least two student-focused programs per year focused on the connection.                                  | • Staff time  | • <b>12/08</b>   |
| • Convert hiring process from paper forms to online interfaces, including proposal to hire, recruitment, applications, personnel requisition.   | • Considerable staff time   | • <b>12/08</b>   |
| • “Last Out, Lights Out...” campaign, with stickers for all manual light switches as a reminder.  | • Minimal time, cost of stickers and materials  | • <b>12/09</b>   |
| • Campaign to encourage duplex (two-sided) printing and copying.  | • E-newsletter  | • <b>12/09</b>   |
| • Convert departmental records from paper to digital images with scanning software packages, especially Human Resources, Procurement, Accounting, Admissions, Registrar, etc.                         | • Cost of high through-put scanners, software, and digital storage media; staff time for scanning | • <b>3-5 yrs</b> |
| — <i>Transportation</i> —   |   |                  |
| • By Fall 2008, adjust parking rules and regulations to ensure West Parking Structure is used closer to capacity during peak hours in order to promote walking and discourage short off-campus trips. | • Staff time  | • <b>12/08</b>   |
| • Begin a Zip car program on campus.  | • \$1,500 per car per month, with probable offset by rentals                                      | • <b>12/08</b>   |
| • Install street signs to identify USD's named roadways to improve efficiency of navigation.  | • Staff time to select locations and design signs; cost of signs                                  | • <b>12/08</b>   |
| • Promote use of city buses; investigate subsidizing reduced fares.   | • Staff time for publicity; possible cost of subsidies  | • <b>12/08</b>   |
| • Establish procedures for offsetting greenhouse gas emissions associated with air travel for university business.  | • Staff time; will probably increase cost of travel   | • <b>12/08</b>   |
| • Develop a webpage of transportation information, including alternatives for coming to the USD campus.   | • Staff time  | • <b>12/08</b>   |
| • Create an alternative transportation committee to work with Human Resources and Parking Services to investigate transportation alternatives.  | • Staff time  | • <b>12/08</b>   |
| • Conduct a comprehensive assessment to identify cost effective and beneficial transportation management strategies.  | • Unknown at this time  | • <b>12/09</b>   |

## Outline of Sustainability Initiatives

|  |   |                  |
|--|---|------------------|
| • Develop a campus transportation management plan to optimize use of existing transportation and parking infrastructure.   | • Staff time  | • <b>12/09</b>   |
| • Install campus map kiosks in areas of high foot traffic, e.g., shuttle drop-off points.  | • Staff time to select locations and design kiosks; cost of kiosks                              | • <b>12/09</b>   |
| • Promote cycling and walking to campus with sidewalks, bikelanes, bikeracks, showers, lockers, etc.   | • Resources to paint bikelanes, add bike racks; increase numbers of showers, lockers            | • <b>12/09</b>   |
| • Establish a vanpool to pick up and drop off students and employees at designated sites.  | • Outside contractor  | • <b>3-5 yrs</b> |
| <b>— Students —</b>  |   |                  |
| • Continue and increase participation in Focus the Nation, RecycleMania, and Earth Week.   | • Staff time, some materials cost   | • <b>Begun</b>   |
| • Increase use of biodegradable goods for residential training and programs involving food.  | • Minimal higher cost of materials  | • <b>Begun</b>   |
| • Develop programs and collateral materials to educate students about waste awareness, water conservation, and recycling.  | • Staff time; cost of materials and incentives  | • <b>Begun</b>   |
| • Purchase items for RA's to encourage commitment to sustainability (e.g., reusable mugs, bottles, bags).  | • Reallocation of existing resources  | • <b>Begun</b>   |
| • Offer "Discover Sustainable San Diego" as part of Torero Days.   | • Approximately \$20,000  | • <b>Begun</b>   |
| • Start a Roots & Shoots group at USD.   | • Staff time  | • <b>12/08</b>   |
| • Establish faculty/staff advisors to facilitate cooperation among environmental groups.   | • Staff time  | • <b>12/08</b>   |
| • Increase use of sustainability topics in student events and awards; for example, Greek Life spirit trophy.   | • Staff time  | • <b>12/08</b>   |
| • Create sustainability guidelines and recommendations; for example, double-sided printing, paperless meetings, turning off electronics, using whiteboards, etc.                                     | • Staff time  | • <b>12/08</b>   |
| • Purchase waste containers for all residential rooms to achieve a one-to-one ratio with recycling containers.   | • Cost of containers, to be determined  | • <b>12/08</b>   |
| • Develop a water conservation program for Residential Life.   | • Staff time  | • <b>12/08</b>   |
| • Improve coordination of end-of-year Student Move-out program to donate clothes, furniture, electronics, etc.   | • Staff time  | • <b>12/08</b>   |
| • Establish a sustainability Residential Living Community for sophomores, juniors, and seniors.  | • One staff person, plus existing resident faculty or resident minister, with duties reassigned | • <b>12/09</b>   |
| <b>— Outdoor Adventures —</b>  |   |                  |
| • Partner with "Leave No Trace" Center for Outdoor Ethics to provide training, require our lead guides to be trainer certified, and incorporate LNT education into all trips, outings, and programs. | • Staff time; cost of materials   | • <b>Begun</b>   |
| • Clean up trash on white water rafting trips.   | • Staff time; reduces cost of orientation for OA staff  | • <b>Begun</b>   |
| • Reduce paper usage with whiteboards for internal messaging and online postings.  | • Train staff   | • <b>Begun</b>   |
| • Use on reusable dishes, utensils, etc., on camping trips.  | • Staff time and cost of materials  | • <b>Begun</b>   |
| • Promote outdoor activities as part of a healthy lifestyle.   | • Staff time  | • <b>Begun</b>   |
| • Co-host an international conference for Outdoor Leaders with a theme of sustainability.  | • Staff time; cost of materials   | • <b>12-08</b>   |
| <b>Possible Metrics for Measuring Success</b>  |   |                  |
| • Number of Zip cars rented annually.  |   |                  |
| • Number of students and employees reached through orientations.   |   |                  |

## Outline of Sustainability Initiatives

| EXECUTIVE COUNCIL   |  |                |
|---|--|----------------|
| <b>Objective: Make the executive decisions required to advance USD's reputation as a leader in sustainability.</b>  |  |                |
| <b>Suggested Initiatives</b>  | <b>Resources</b>   | <b>Time</b>    |
| • Join AASHE (Association for the Advancement of Sustainability in Higher Education)                                | • \$1,000 annually   | • <b>Begun</b> |
| • Become an annual Earth Day institutional sponsor.   | • \$2,500 annually   | • <b>Begun</b> |
| • Establish a pool of travel funds for to enable students, faculty, and staff to attend sustainability conferences. | • \$5,000 annually   | • <b>12/08</b> |
| • Establish sustainability guidelines for selecting green endowment investments.                                    | • Investment subcommittee of the Board of Trustees                       | • <b>12/08</b> |
| • Establish an advisory board to implement the sustainability strategic plan.                                       | • Executive Council plan; faculty/staff time                             | • <b>12/08</b> |
| • Sign the Presidents Climate Challenge.  | • Funds to significantly reduce carbon footprint                         | • <b>12/09</b> |
| • Establish a campus sustainability office; consider a faculty director with reassigned time and support staff.     | • Office, 9 units of reassigned time, graduate assistant for 20 hrs/week | • <b>12/09</b> |
| <b>Possible Metrics for Measuring Success</b>   |  |                |
| • Total dollars invested in "green" funds.  |  |                |

## Inventory of Sustainable Practices at USD

This inventory of current practices is based on information voluntarily submitted to the task force in response to requests for information. Not all schools and departments responded, so the inventory does not represent all activities on campus related to sustainability or climate change. This is a partial listing of courses, research activities, and practices presented in summary form.

### College of Arts and Sciences

#### Courses Offered

- ART 338 – City and Utopia: Introduction to history of urbanism
- ART 342 – Contemporary Architecture
- BIO 102 – Ecology and Environmental Biology
- BIO 190 – Introduction to Genetics, Ecology & Evolution
- BIO 451W/MARS 451 W – Biological Oceanography
- Bio 364/ ENVI 364 – Conservation Biology
- BIO 494 – Global Change Ecology
- CHEM 355 – Environmental Chemistry
- ENVI 104 – Natural Disasters
- ENVI 109 – Introduction to Physical Geography
- ENVI 110 – Introduction to Earth Systems
- ENVI 121 – Life in the Oceans
- ENVI 300 - Environmental Issues
- ENVI 305 – Environmental Assessment
- ENVI 312 – Introduction to GIS (also core to Peace & Justice Masters students)
- ENVI 314 – Introduction to Maps & Spatial Analysis
- ENVI 315 – Geographic Information Systems
- ENVI 331W – Coastal Environmental Science
- ENVI 420 – Introduction to Remote Sensing
- ENVI 487 – Surface Water Hydrology
- HIST 370 – American Environmental History
- POLS 329 – Law of the Sea
- POLS 349 – Politics and the Environment
- MARS 101 – Physical Aspects of the Ocean
- MARS 120 – Introduction to Physical Oceanography
- MARS 427 – Geological Oceanography
- MARS 452 – Physical & Chemical Oceanography
- MARS 468 – Marine Ecology
- MARS 473 – Climatology
- MARS 474 – History of the Earth & Climate
- PHIL 338 – Environmental Ethics
- PHIL 344 – Environmental Justice

- PHYSICS 494 - Energy and the Environment
- SOC 110 – Contemporary Social Issues
- SOC 323 – Contemporary Social Issues in Theology
- SOC 362 – Global Society
- THRS 312 – Hindu Faith Practice
- THRS 335 - Catholic Social Thought
- THRS 320 – Native American Religion Traditions

### **Faculty Research**

- Can Bilsel: Green architecture, sustainability in art and design.
- Juliana Maxim: Green architecture, sustainability in art and design.
- Hugh Ellis: Physiological ecology and response of birds to temperature change.
- Paul Kemp: Environmental ecology; response of terrestrial communities to temperature change.
- Jame Bolender: Chemical analysis of water quality; heavy metals; sensors for chemicals in water and air.
- David De Haan: Environmental chemistry in aerosols; greenhouse gases and organics.
- Peter Iovine: Green chemistry; development of new materials to replace plastics.
- Stephen Mills: Protein chemistry and response to heavy metals.
- Michel Boudrias: Long term environmental monitoring of marine benthic communities; anthropogenic impacts on ecosystems.
- Sarah Gray: Paleoclimatology; anthropogenic impacts of sedimentation on coral reefs; heavy metals in corals.
- Ron Kaufmann: Antarctic ecology in conjunction of climate change, icebergs and glaciers; long term ecological studies of marine ecosystems.
- Zhi-Yong Yin: Climatology; study of rainfall patterns and effect of climate change in China; tree ring analysis and climate change.
- Nathalie Reyns: Long term ecological studies; response of larval organisms to physical changes in coastal environments.
- Colin Fisher: American environmental history; urban and national parks and African-Americans and the environment.
- LeeAnn Otto: law of the sea; small scale or artisanal fisheries in aboriginal populations.
- Mark Woods: Environmental Ethics and environmental justice.
- Daniel Sheehan: research on violations of second law of thermodynamics; alternative sources of energy.
- Thomas Reifer: Sociological and racial connections to environmental justice; articles on Hurricane Katrina and a book *Earth, Wind & Fire*.
- Lance Nelson: Hinduism and the environment.
- Jasmine Winn: Developed a global citizenship scale. The GCS measures three distinct constructs that define global citizenship behaviors: environmentalism, social justice, and civic participation.
- Matt Zwolinski: Environmental philosophy, ethics and law.

## School of Business Administration

### Courses Offered

- USD's MBA program was recently ranked 37th in the world by "Beyond Grey Pinstripes," a biennial survey and alternative ranking of business schools that spotlights innovative full-time MBA programs integrating issues of social and environmental stewardship into curricula and research.
- ECON 309 – Environmental and Natural Resource Economics – Andrew Narwold - Offered every other year.
- ETLW 403 – Environmental Management – On the books but has not been offered in several years.
- GSBA 507- Global Peace Through Commerce- Kokila Doshi- Includes a section on the environment and sustainability. Based on case studies and concrete examples. Also talk about UN Global Compact and how member companies help communities and the planet.
- BSCM 494 - Socially responsible and sustainable supply chains – Simon Croom – Undergraduate special topics course taught Spring 2007.
- GBSA 594 - Socially responsible and sustainable supply chains – Simon Croom – MBA special topics course to be taught Intersession 2008.
- ECON 101 – Principles of Microeconomics – Bob Johnson devotes a class period to the discussion of these topics.
- ETLW 302 – Business and Society – Cynthia Thornton, adjunct, indicates that the environment is covered in the curriculum, and she covers a section of sustainability.

### Research and Consulting

- The Burnham-Moores Center for Real Estate recently co-hosted the conference "Is It Easy Being Green" attended by over 200 industry and civic leaders.
- Norm Miller has completed a comprehensive study evaluating the additional costs associated with green construction and renovation.
- Simon Croom was the 'point person' for the USD-Starbucks relationship last academic year and again this year, focused on socially responsible and sustainable supply chain management.
- Simon Croom has been approached about a Research Fellowship from a professional body to support his work in this area of SCM.

USD's SBA Supply Chain Management Institute Annual Forum in 2006 concentrated on CSR and Green issues

- Dan Rivetti is consulting on the first "energy positive" building...big fans on the roof catch the wind and make power....not a wind mill ...but similar...must be on new and very tall buildings...
  - Claribel Bonilla, Industrial and Systems Engineering, is working on a project titled *Global Warming Cost Impact in Water Resources due to required Desalination Treatment Costs*.
-

## School of Law

The primary task of the USD Sustainability/Climate Change Task Force is to conduct an inventory to determine what sustainability-related activities are occurring on campus in the following areas: curricular, extra-curricular, administrative and management, operations, and facilities management. The following provides a brief overview of current environment-related activities and those under consideration at USD School of Law.

### Environment-related Course Offerings

The following chart shows existing environmental law course offerings.

| Course Name                     | Faculty        | Frequency        |
|---------------------------------|----------------|------------------|
| Environmental Law & Policy      | McAllister     | Every Year       |
| Comparative Environmental Law   | McAllister     | Every Other Year |
| Climate Change Law              | McAllister     | Every Other Year |
| International Environmental Law | Vargas/Stewart | Every Year       |
| Environmental Law Seminar       | Adjuncts       | Every Year       |
| Energy Law                      | Adjuncts       | Every Year       |
| Contemporary Water Law Issues   | Minan          | Every Year       |
| Land Use                        | Minan          | Every Year       |

### Environment-Related Clinical Offerings

The following chart shows existing environment-related clinic offerings.

| Clinic Name                     | Faculty | Frequency  |
|---------------------------------|---------|------------|
| Environmental Law Clinic I & II | Wharton | Every Year |
| Energy Law and Policy Clinic    | Adjunct | Every Year |
| Land Use Clinic I & II          | Quinn   | Every Year |

### Formal Degree Programs

USD School of Law offers an Environmental LLM.

### Faculty

As indicated above, USD School of Law has several full-time, visiting, and adjunct faculty teaching environment-related courses. Prof. Lesley McAllister is the latest addition to the full-time faculty who specializes in environmental law. She teaches a range of environmental law courses and conducts research in the area of environmental compliance. She also has been appointed to the faculty of UCSD's Graduate School of International Relations and Pacific Studies (IR/PS) as an adjunct professor.

A notable offering is the Stanley Legro Professor of Environmental Law. This funded program allows USD School of Law to bring renowned faculty to teach environmental law. Richard Stewart is visiting from NYU Law School during Spring 2008. Richard Lazarus from Georgetown Law School (visiting in 08-09 at Harvard Law School) will be the Legro Professor in 08-09.

### Centers and Institutes

The Energy Policy Initiatives Center (EPIC), formed in 2005, is an academic and research center that does regulatory, policy, and legal research on a range of clean energy topics. In partnership with Dr. David DeHaan of the Chemistry Department, EPIC is conducting a regional greenhouse gas inventory that will be the basis of policy development in the region. EPIC also recently launched a lecture series on the legal and policy implications of climate change. For more information on EPIC's activities, see [www.sandiego.edu/epic](http://www.sandiego.edu/epic).

## **Student Activities**

Active Environmental Law Society  
Sustainability Proclamation adopted by Law School SBA

## **Under Consideration**

Environmental Law Publication

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## **Mission and Ministry**

- The theme of this year's All Faith Service was "Gathered in Prayer, Reverencing Creation" (2/7/08).
  - The Catholic Social Thought committee hosted Dr. Barbara Wall in October, and she gave a noon-time address titled "The Call for Harmony with all God's Creation."
  - Mission and Ministry co-sponsored the Social Issues Conference, including its hosting of Thict Nhat Han and his focus on simplicity and sustainability.
  - In conjunction with Outdoor Adventures, University Ministry's choir participated in a camping retreat this fall rather than a more traditional retreat.
  - University Ministry's Romero Center and Students for Life both sponsor a number of collections of gently used clothes, books, and other supplies for donation to a variety of social service agencies.
  - University ministers frequently reflect with students on creation and reverence for creation, especially when those themes are presented by the liturgical reading and especially in the Residential Learning Communities.
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## **Residential Life**

- Large recycling bins have been placed in each of the residence halls on campus, encouraging residents to recycle more now that the bins are more accessible and convenient.
  - Bulletins boards in each of the residence halls have been plastered with recycling information, including what constitutes a recyclable product and what does not.
  - The residents of Manchester Village held a workshop on using recycled goods as art.
  - Vistas residents have adopted a "Last out, Lights out" motto as an effort to conserve energy use.
  - The Vistas RA staff has stopped printing their weekly meeting agendas, as well as held their own recycled gift exchange before the holidays.
  - RA staffs on campus began recycling bottles and using the money earned towards hall programming for their residents.
  - Missions A RA's are holding recycling competitions and giving out awards for the halls with the most recycled products.
  - Missions B RA's create a monthly newsletter on recycling and post it in the hall's bathrooms.
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## **Auxiliary Services**

- **Dining Services**

- Practices sustainability in purchasing.
- “Organic to Go” USDA certified Organic Retailer.
- Purchase meat and fish from businesses using minimal human antibiotics.
- Purchase tuna that is dolphin-safe and water packed.
- Purchase only wild-caught salmon.
- Use trans-fat-free oil (non-hydrogenated canola oil) for all cooking.
- 75% of chemicals used in Dining Services are green (Ecolab).
- Use paper napkins made of recycle paper.
- Use paper plates made from 100% reclaimed fiber, unbleached and compostable.
- Use cups for cold beverages made from polylactic acid from corn.
- Use cups for hot beverages made from renewable fiber with polylactic acid lining.
- Use disposable silverware made from potatoes (“SpudWare”), which is 80% potato starch and 20% soy oil; biodegrades in just 180 days.
- Recycle and/or reuse all cardboard and packing materials.
- Recycle all paper used internally.
- Have implemented “Trayless Fridays.”

- **Bookstore and Campus Card Office**

- Recycle and/or reuse all cardboard and packing materials.
  - Recycle all paper used internally.
  - Recycle all used toner cartridges.
  - Purchased placed in non-imprinted bags, which are recyclable.
  - Our vendors are certified sweatshop free.
  - Recycle plastic, aluminum and glass beverage containers.
  - Organic T-shirts are part of our apparel mix.
  - Fair trade merchandise is part of our product mix.
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## Facilities Management

- Use green, environmentally friendly cleaning products in most areas on campus.
  - Use recycled roll paper towels and plastic trash liners.
  - Use microfiber cloths instead of paper towels or paper wipes.
  - Recycle an increasing number of materials:
    - Mixed paper and corrugated cardboard.
    - Commingled aluminum, metal, glass, plastic bottles, and cans.
    - Used carpet.
    - Wood pallets.
    - Anti-freeze and motor oil.
    - Electronic waste (computers, printers, inkjet and toner cartridge recycling).
    - Used batteries, fluorescent tubes, and ballast.
    - Green waste (grass clippings, leaves, etc.)
  - Offer recycling at events when requested.
  - Redistribute, reuse, or donate surplus office, supplies, equipment and furniture.
  - Replaced 13 gas vehicles with 13 electric vehicles.
  - Changed from solvent-based to water-based parts cleaner.
  - Installed a vapor recovery system for the gas pump.
  - Use 60% organic insecticides and fertilizers.
  - Initiated a pilot program for a central irrigation system to reduce water consumption.
  - Installing more water efficient irrigation heads.
  - 5% of the USD's power is considered "green power" from SDG&E.
  - USD's chillers operate at a maximum of 0.6kw/ton, which is 45% more efficient than a typical air-cooled chiller.
  - Central plant cooling system operates on the environmentally friendly, non-HCFC refrigerant R123.
  - Use variable frequency drives on most equipment, decreasing energy consumption.
  - The majority of buildings have a cool roof.
  - All buildings are designed with variable air volume systems with reheat and direct digital controls.
  - Many residence hall showers have low-flow shower heads and restrooms have low-flow toilets.
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## University Relations

### Recycled papers

Nearly all of the marketing projects produced by our marketing team on behalf of the University of San Diego are printed on recycled papers. This year, they made a conscious decision to print the vast majority of their projects on one preferred paper stock. That stock, called Endeavor, contains 50 percent recycled content and 25 percent post-consumer waste content. In addition, the mill used in the processing of this paper is also, what is known as a “clean” mill, which means it operates using sustainable practices.

### Environmentally friendly inks

The marketing team prints many of their materials using environmentally friendly inks, rather than inks made with petroleum. These inks have low levels of VOCs (volatile organic compounds), which can help with air pollution by minimizing emissions.

### FSC certified products

The marketing team uses papers that are certified by the Forest Stewardship Council. FSC certified papers come from mills that use fibers made from responsibly managed forests.



### FSC certified vendors

Likewise, the majority of our main vendors are also certified by the Forest Stewardship Council. This means that they have been trained to follow procedures to ensure the proper use of FSC certified paper.