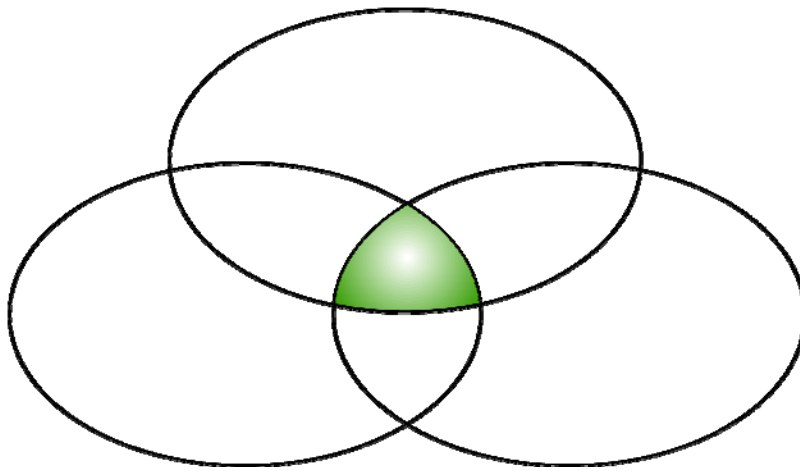


# Sustainability

at

# Cal State Fullerton



A Report from the Sustainability Initiative Study Group

October 28, 2008

**Committee Members:**

Willem van der Pol (Chair)	Physical Plant
Paulette Blumberg	Administration & Finance
Kurt Borsting	Titan Student Union
Robert Brobst III	Student Housing
John Carroll	Academic Senate
Joe Ferrer	Parking & Transportation
Scott Hewitt	Academic Senate
Tony Lynch	Campus Food Services
Chris Manriquez	Information Technology
Anthony Martinez	Student
Steve Murray	Academic Affairs
Mike Smith	Design & Construction
Gina van Deth	Student
Tom Whitfield	Environmental Health & Instructional Safety
Sally Yassine	Contracts & Procurement

## Contents

<a href="#"><u>Introduction</u></a>	page 5
<a href="#"><u>Executive Summary</u></a>	page 7
<a href="#"><u>Charge</u></a>	Page 9
<a href="#"><u>Definitions</u></a>	page 10
<a href="#"><u>Mission &amp; Goals</u></a>	page 12
<a href="#"><u>SWOT</u></a>	page 13
<a href="#"><u>Discussion</u></a>	page 14
<a href="#"><u>Recommendations</u></a>	page 18
<a href="#"><u>Resources</u></a>	page 22
<a href="#"><u>Conclusion</u></a>	page 25
<a href="#"><u>Attachments</u></a>	page 27

*“The sustainability initiative is a good example of comprehensive engagement whereby a major public need is being systematically integrated into teaching, service, research, and facilities management.”*

- Access to Excellence

*“Higher Education has a unique role in society. It has been granted tax-free status, the ability to receive public and private funds, and academic freedom, in exchange for educating students and producing the knowledge that will result in a thriving and civil global society. With global warming, society faces a crisis that threatens its very viability. Reversing global warming is the defining challenge of the 21st century. Addressing this threat successfully will mean transforming our economy, our institutions, our daily lives - and doing so within a generation. This is a challenge of massive proportions, one that desperately calls for vision and leadership of higher education.”*

- A Call for Climate Leadership

## **Introduction**

California State University Fullerton has made important strides in sustainability related areas over the years and we can certainly be proud of our accomplishments. However, the successes are isolated to individual units and departments and are not the result of an overall Cal State Fullerton drive towards a more sustainable future. In his charge to the Sustainability Initiative Study Group the President said: “Cal State Fullerton has done its part in a variety of ways to help make our campus more sustainable; however we can and should do more.” This report marks the beginning of our University’s coordinated effort to help create a sustainable way of doing business on campus, and to help students take advantage of new learning opportunities. To take action now is of increasing importance given the current and future impacts of climate change.

*“Higher educational institutions can contribute importantly to social and political improvement by more self-consciously asserting their responsibility to educate for democratic engagement, leadership in sustainability, altruism, service, problem-solving, and civility.”*

- Access to Excellence

*“More than ever, universities must take leadership roles to address the grand challenges of the twenty-first century, and climate change is paramount amongst these. ASU is committed to achieving a sustainable future by defining the role of higher education institutions as innovators creating long term global endowments, knowledge and technology for the stewardship of the earth’s human and natural resources. The Presidents Climate Commitment is a bold step in the right direction.”*

- Michael M. Crow, President of Arizona State University

## Executive Summary

The Sustainability Initiative Study Group looked at sustainability from a broad variety of perspectives and has tried to assemble a complete set of recommendations. Cal State Fullerton prides itself in being a leading institution for higher education and a multicultural university with global connections. It is appropriate, therefore, that our University actively and publicly supports the objective of achieving a sustainable world and that everyone associated with our institution recognizes that we have made this commitment. Doing so sets the right tone for other initiatives and encourages members of our campus and neighboring communities to actively move towards a more sustainable lifestyle.

Implementing practices to help our students be successful in a changing society, while also enabling them to gain the knowledge and experiences needed to create change, is an essential component of a sustainable campus environment. Sufficient encouragement for sustainability should be provided at the highest level of our institution and it is important to create an organizational structure that advances and supports sustainability. Cal State Fullerton is a large operation with a significant carbon footprint. As such, it is important that we behave in the most responsible ways possible. Additionally, the University must comply with laws and executive orders and has a responsibility to the community we serve, requiring that we “go the extra mile” in looking for ways to make our campus operations more sustainable.

With these considerations in mind, the SISG recommends the campus take the following actions:

- Sign the Presidents Climate Commitment
- Recognize the importance of educating all members of society on sustainability
- Develop and adopt a Cal State Fullerton Sustainability Policy
- Integrate sustainability into the University’s Mission & Goals planning process
- Develop a curriculum educating the students on the challenges of a sustainable future
- Promote research that includes sustainability as a core subject
- Create opportunities for students to be successful in emerging fields of sustainability expertise
- Continuously educate faculty and staff to create a learning environment with sustainability as a core principle
- Collaborate with other universities and academic institutions to advance knowledge and implement best practices
- Reach out to our local community to help our region become more sustainable
- Sign the Talloires Declaration
- Establish a Cal State Fullerton Sustainability Office
- Establish a Cal State Fullerton Sustainability Committee
- Support initiatives to help our University become more sustainable
- Create a campus culture that supports sustainability
- Create a campus culture of accountability
- Install a (temporary) Sustainability Action Task Force until a sustainability office and permanent committee are established

*“Growth issues must consider sustainability as an important part of the overall discussion. Last year, one of my key goals was to incorporate the principles of sustainability throughout the curriculum and institutionalize sustainability so we would become a leading higher education institution on sustainability and a voice for change. Task Forces on Sustainability have been formed and I look forward to receiving their recommendations later this year.”*

- President Milton Gordon  
University Convocation 2008



## Charge

In March 2008 President Milton Gordon formed the Sustainability Initiative Study Group (SISG) (*attachment 1*) to develop recommendations as to how Cal State Fullerton should approach the sustainability issue through:

- The establishment of environmentally sustainable operational practices throughout the campus, and
- The development of the University as a leader in the community on issues pertaining to global warming

The task of the SISG was to:

1. Develop and recommend sustainability related goals and objectives
2. Propose a structure by which to manage sustainability issues, and
3. Propose the parameters by which we will measure success in achieving our identified sustainability goals and objectives

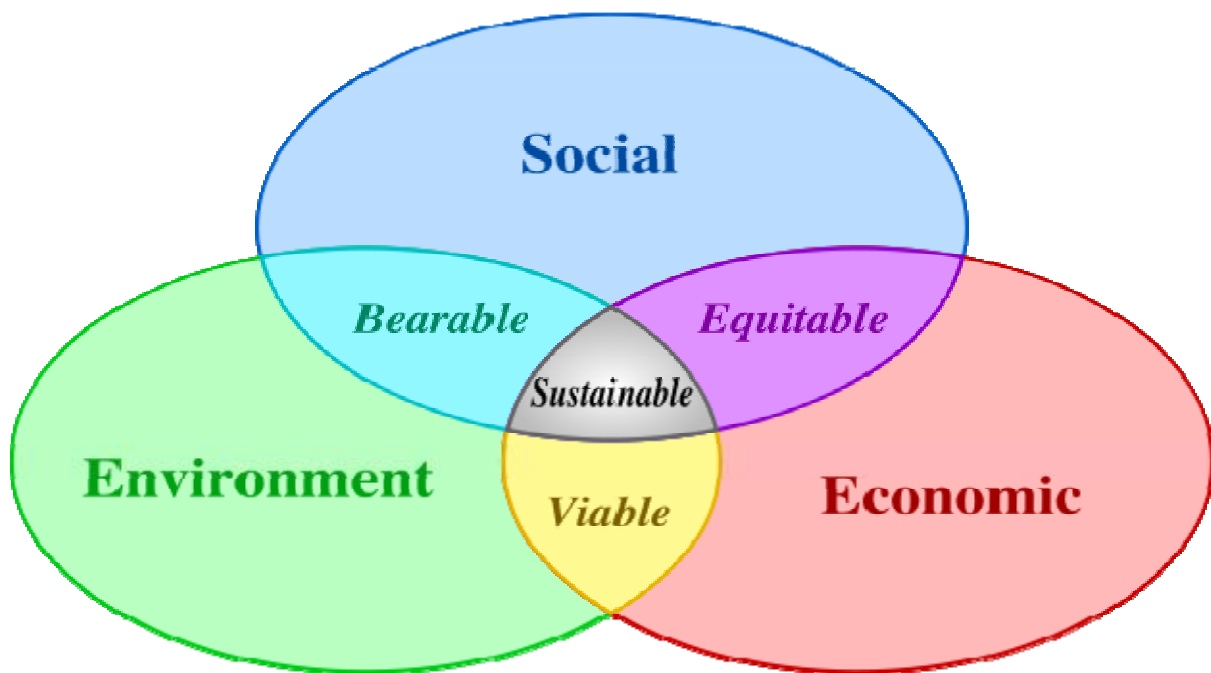
## Definitions

One of the challenges with discussions about sustainability is that it is hard to define. Many definitions and descriptions of sustainability have been promulgated, including the following:

*“Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but in the indefinite future.”*

The term coined by the Brundtland Commission (*attachment 2*) that has become the most often-quoted definition is: *“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*

The field of sustainable development can be conceptually broken into three constituent parts: environmental sustainability, economic sustainability and sociopolitical sustainability.



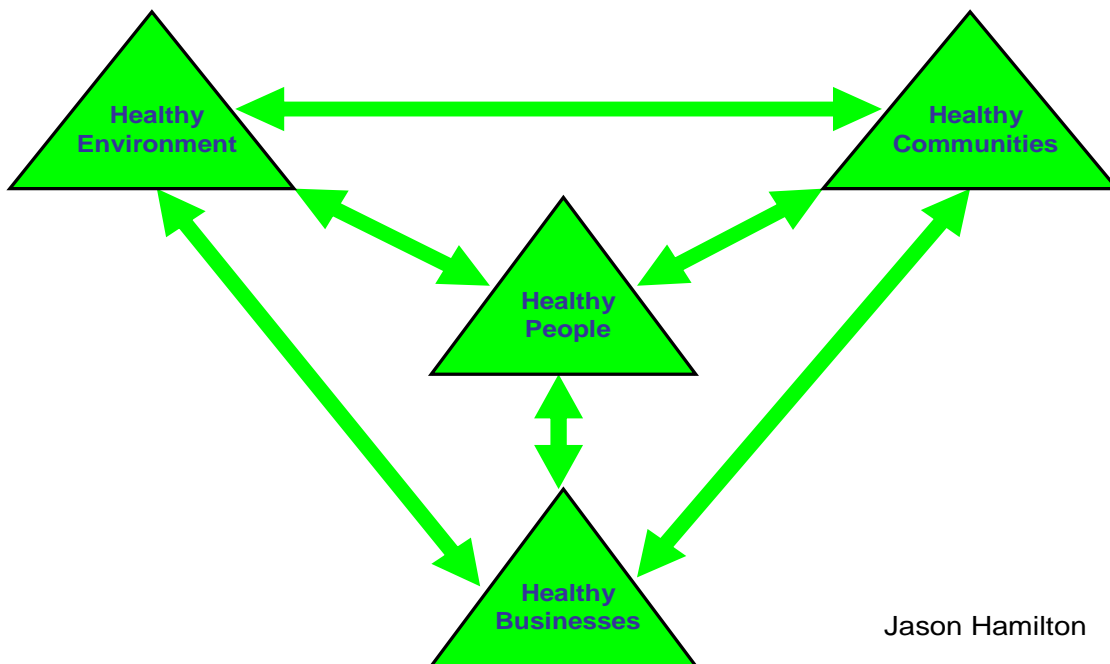
As this illustration suggests, sustainability encompasses all human activity. It is a very general concept like "liberty" or "justice", which are accepted as important, but is a "dialogue of values" that defies consensual definition. Sustainability is also a call to action and therefore open to political interpretation concerning the nature of the current situation and the most appropriate way to move forward. A further practical difficulty with a universal definition is that the strategies needed to address "sustainability" will vary according to the particular circumstances under consideration.

The European Environment Agency Sustainable Development Program has listed eight broad objectives that distill the recurrent themes of the *global* sustainability agenda:

- provide future generations with the same environmental potential as presently exists (address intergenerational equity)
- manage economic growth to be less resource intensive and less polluting (decouple economic growth from environmental deterioration)
- better integrate sectoral and environmental policies (integrate sectors)
- maintain and enhance the adaptive capacity of the environmental system (ensure environmental adaptability)
- avoid irreversible long-term environmental damage to ecosystems and human health (prevent irreversible damage)
- avoid imposing unfair or high environmental costs on vulnerable populations (ensure distributional equity)
- assume responsibility for environmental effects that occur outside the area of jurisdiction (accept global responsibility)
- introduce rules, processes and practices that ensure the uptake of sustainable development policies at all levels of sustainability governance (apply sustainability governance)

Last year the Academic Senate Ad Hoc Sustainability Committee invited sustainability consultant Dr. Jason Hamilton to speak to the campus community. His definition went as follows: “*Sustainability is achieved by creating the connections between healthy people, healthy environments, healthy communities, and healthy businesses.*”

### Sustainability is About the Connections That Lead to Health



## Mission & Goals

The Sustainability Initiative Study Group was formed as a result of a Mission & Goals Initiative Proposal (*attachment 3*) and reviewed the University's mission, goals and strategies statement (*attachment 4*) to explore how sustainability and the SISG recommendations were aligned with this document. The mission statement provides a strong indication about how sustainability fits in: *"We aspire to combine the best qualities of teaching and research universities where actively engaged students, faculty, and staff work in close collaboration to expand knowledge."* The sustainability issue needs exactly that: we need to be engaged, work hard and collaborate to find out everything there is to know about this issue. We also need to address sustainability more specifically in our planning process.

*"Our affordable undergraduate and graduate programs provide students the best of current practice, theory, and research and integrate professional studies with preparation in the arts and sciences. Through experiences in and out of the classroom, students develop the habit of intellectual inquiry, prepare for challenging professions, strengthen relationships to their communities and contribute productively to society."* There is hardly any subject that is more current than sustainability and it should become a core part of the curriculum. The learning experience at Cal State Fullerton will be greatly enriched through the addition of a wide range of subjects pertaining to sustainability.

*"We are a comprehensive, regional university with a global outlook. Our expertise and diversity serve as a distinctive resource and catalyst for partnerships with public and private organizations. We strive to be a center of activity essential to the intellectual, cultural, and economic development of our region."* The "think globally and act locally" approach is particularly appropriate for sustainability. Because we already have such expertise and diversity, we can be the local engine to move this issue forward and enrich individuals as well as companies. Cal State Fullerton has the ability to be a catalyst for progress in our community while staying in tune with global developments.

When we take a look at the goals & strategies, virtually every commitment in the document can be applied to sustainability. Here are just a few examples:

- Provide experiences in and out of the classroom that attend to issues of culture, ethnicity, and gender, and promote a global perspective.
- Capitalize on the uniqueness of our region, with its economic and cultural strengths, its rich ethnic diversity, and its proximity to Latin America and the Pacific Rim.
- Support faculty research and grant activity that leads to the generation, integration and dissemination of knowledge.
- Promote collaborative and innovative exchanges with other educational institutions at all levels to maximize the efficient use of resources and enhance opportunities for all learners.
- Develop mutually beneficial working partnerships with public and private sectors within our region.
- Enhance a sense of community to ensure that faculty, students, and staff have as a common purpose the achievement of the overall goals of the University.

## **Strengths, Weaknesses, Opportunities, and Threats**

Evaluating sustainability using a SWOT analysis the SISG considered the following:

- Cal State Fullerton has many strengths that support its commitment to sustainability as a core strategic issue and responsibility. As a quality comprehensive institution of higher learning, we are in a unique position to stay abreast of important developments in science and culture. We live in a state that promotes sustainability and we have an engaged audience with whom we can share this knowledge. We have a strong faculty that can research and teach sustainability as a separate subject or integrate it into existing curricula. We have a very diverse student body eager to learn and we can take advantage of the multicultural make up of our students to foster a better understanding of how sustainability affects different groups in our society. We have a motivated staff willing to make an investment in a more sustainable future and capable leadership that has the necessary trust of the campus community.
- From a sustainability perspective, one of the weaknesses of our University is that it is a commuter campus making transportation a major issue. as it has a great impact on our carbon footprint. We need to make a bigger effort to reach out to the community to improve public transportation, and to encourage students, faculty, staff and visitors to use alternate forms of transportation. Another weakness is that cross disciplinary programs are difficult to implement given departmental and college based funding streams. Sustainability is by definition an interdisciplinary subject that will require cross college collaboration for implementing new majors or minors.
- There are a wealth of opportunities associated with Cal State Fullerton taking an aggressive approach towards integrating sustainability into all facets of our University. The most important of these is the opportunity to be a leader at a time when leadership is most needed. Aggressively pursuing a leadership role on sustainability will bring about the recognition that will allow the university to attract key faculty, staff, students and donors to help drive the effort, accelerating our campus' positive influence on local communities and beyond. Being a leader also provides operational advantages that help us develop a sustainable environment, streamline procedures and make more efficient use of campus resources, ultimately saving money.
- There are threats of course, and perhaps the one to look out for most is underestimating the magnitude of the sustainability issue. It will take resources to develop and maintain the robust program we are suggesting in this report. We will need to make sure that the organizational and financial foundations are in place to support sustainability. This may lead to conflicts because of the scarcity of resources at almost every level of the university's operation. Therefore, a sound planning and budgeting process that includes the sustainability parameters will need to be developed and put in place. Success will depend largely on the commitment and leadership the executives of our University.

## **Discussion** (Considerations by the SISG)

Between March and July of this year the Sustainability Initiative Study Group (SISG) met four times, once with a representative of Cal Poly Pomona, and had productive discussions. Since the initial M&G proposal in January 2007, the Academic Senate formed an Ad Hoc Sustainability Committee and they developed a proposal (*attachment 5*) during the fall of 2007. The SISG studied that proposal and used it as the basis for some of the recommendations in this report. It is important to mention that the campus has done well in a number of areas, and the Academic Senate Sustainability Committee's report provides a good overview of those accomplishments.

The members of the SISG were significantly different from the Academic Senate committee and that was reflected in the discussions. Because of the wide range of operational responsibilities represented, one of the major concerns was the affordability of committing to address our impact on the carbon footprint. There were strong feelings about not taking on something the University couldn't possibly deliver. Members of the SISG communicated with their counterparts on other campuses and they found a general consensus that this is an issue definitely worth pursuing, but that there seems to be a healthy amount of realism about the difficulties involved.

The conversation with Kyle Brown of Cal Poly Pomona was very informative. Kyle is the Director of the Center for Regenerative Studies at Cal Poly and he is the co-chair of Pomona's Climate Commitment Task Force (*attachment 6*). Even though we were impressed with the progress made at Pomona the discussions with Kyle highlighted some of the difficulties involved with the President's Climate Commitment. Becoming climate neutral will be very difficult at any time in the foreseeable future for a commuter campus like Cal State Fullerton. By far the largest component of our carbon footprint comes from transportation. The University doesn't control public transit systems nor do we have a large enough impact on the automobile industry to affect the amount of carbon put in the atmosphere by students, faculty and staff traveling to and from the campus. Because there are many issues that are well outside of our span of control it will be important to reach out to the community and local authorities as well as the state. We had a few conversations with the City of Fullerton and there is a definite interest to collaborate in developing future collaborations.

As the discussion developed, the SISG recognized that conceptually, sustainability covers much more than global warming and climate change. The latter two have everything to do with the amount of greenhouse gases we put in the atmosphere, with discussions that focus on solving the problem through energy conservation, renewable energy, and so on. Sustainability is much broader and deals with issues such as: clogging-up the environment with plastic bags and water bottles; the diversity in the gene pools of the foods we grow; and managing our vulnerability to disease as certain microbes are adapting more quickly to changing environments. The scarcity of drinking water is a major concern worldwide and in Southern California in particular (*attachment 7*), so much so that there is fear that globally this scarcity may ultimately lead to a greater upheaval of the status quo than oil-related problems. We need to learn so much more about all of this. We also need to know a lot more about human behaviour. Our society has built an impressive industry that can sell people just about anything based on their desires, fears and so on. If we want to succeed we have to somehow make sustainability more accessible in ways that directly relate to our daily lives and sphere of influence.

The issues that fall under the sustainability umbrella are diverse and affect many, if not all departments on campus. From an operational perspective these would include, but not be limited to: energy conservation; transportation; landscaping, water conservation; construction; waste management; food services; use of paper products; technology; and green cleaning. From an academic perspective, the curriculum, scheduling, research, and educational programs will need to adapt to changing circumstances or, conversely, be the drivers for change. From a student perspective, there will be an increasing demand that the University operate in a sustainable manner, and they will be looking for programs that will help them prepare for a future that will be different from today.

In some areas we do better than in others. Throughout the campus there are people who are motivated to make a difference and many already have made an impact. As an example, we have a good energy conservation record and we already teach a number of classes that use sustainability as a core component. The Student Recreation Center is receiving LEED certification (*attachment 8*) and Campus Foodservices is offering organic sandwiches. However, the use of information technology seems to be counter productive. The systems themselves keep adding more load to the grid and processes appear to become more paper intensive because some campus members are not willing or able to let go of traditional processes and move closer to a paperless operation. On the positive side, IT is striving to consolidate systems through server virtualization to make the operation more efficient, but we should also collectively be working toward fully streamlining and enhancing the processes and becoming (practically) paperless.

Based on the various executive orders and bills being introduced, the most urgent issues to address are energy conservation and decreasing our carbon footprint. The American Colleges and Universities Presidents Climate Commitment document (*attachment 9*) gives a rundown of what is involved:

- Foster energy conservation and efficiency
- Generate or buy renewable power
- Transportation systems
- Purchasing
- Recycling/Waste Management
- Campus Food Systems
- Investment in climate solutions
- Research and development
- Teach climate science and policy
- Educate community about climate solutions
- Partner with communities and businesses to share climate expertise

The same website argues that taking a leadership role will reap benefits:

- Recruit better students and attract leading faculty
- Appeal to stakeholders and secure funding
- Operate more efficiently and effectively, providing financial benefits
- Stay ahead of regulatory curve

So the argument is that we need to invest in our future now (not borrow from it as we have done for too long) knowing that it will pay off in the long run. Even though climate neutrality may be far on the horizon, achieving this result is not impossible. With photo-voltaic installations, purchasing only renewable power, more housing on or near campus, better public transportation, advancing automobile technology, and carbon offsets, we can get there.

The SISG discussed how to best institutionalize sustainability on the campus. Right now there are various departments which have made a commitment to integrating some sustainable principles in their operation. We have members of the faculty who have made this issue part of the courses they teach. On the whole, the University is not yet fully committed to optimizing sustainable practices and this has partially to do with structure. However it is not enough to say that the University is committed; the commitment needs to be embedded in the basic organizational operation of the campus. When we address planning, operational and budget issues, sustainability needs to be one of the parameters undergoing analysis, and it needs to have a constituency.

The SISG looked at other campuses to see what they have done to make sustainability part of the university's fabric and came away with a very mixed bag of approaches. After various discussions, the group agreed that the University needs a sustainability office to coordinate and promote a broad array of sustainability-related initiatives. We also agreed that in order to be effective, this office ought to be high in the organizational structure and report directly to a Vice President.

It was helpful to scan some of the sustainability websites created by other campuses. Among campuses our size, Cal State Fullerton could definitely do better when it comes to presenting a comprehensive and cohesive website, and having an identifiable organization that supports sustainability. Everyone in the organization and the community needs to understand that this issue is supported by the President, and they should know where they can go to find information about anything related to sustainability. Because sustainability is such a broad concept, it needs to be organized. A well-maintained web site can be an enormous help for guiding the community to what is available and where or what they need to do to get it.

One of the CSU campuses we looked at was Fresno (*attachment 10*). They have established an Assistant Vice President position for Risk Management & Sustainability. They have also instituted a Subcommittee on Campus Sustainability. This subcommittee is to advise the Campus Planning Committee on creating and maintaining sustainable practices throughout the campus community. They issued a joint proclamation with the City of Fresno for "*an ongoing collaborative working partnership to exist between both organizations to establish sustainable solutions for the environmental challenges facing the citizens of the San Joaquin Valley*".

Another campus addressing the sustainability challenge is our neighbor just to the north off the 57 freeway: Cal Poly Pomona (*attachment 11*). University President Michael Ortiz signed the Presidents Climate Commitment, and he says: "*This commitment requires Cal Poly Pomona to develop a comprehensive plan of action that will lead to climate neutrality and increase the critical education and research necessary for society to re-stabilize the world's climate.*" Towards that end Cal Poly created the President's Climate Commitment Task Force.



When it comes to sustainability, California State University Chico is probably the frontrunner within the CSU system (*attachment 12*). Chico has an Executive Director of the Institute for Sustainable Development and there is evidence of their commitment to sustainability throughout the organization. They say: “*We have embraced as a campus the following value statement as part of our Strategic Plan for the Future to guide our efforts in sustainability: Believing that each generation owes something to those who follow, we will create environmentally literate citizens who embrace sustainability as a way of living. We will be wise stewards of scarce resources and, in seeking to develop the whole person, be aware that our individual and collective actions have economic, social, and environmental consequences.*” Annually Chico hosts a sustainability conference which enjoys broad participation.

There are many other sides to take a look at, too many really, and they all provide information and ideas we could apply at Cal State Fullerton. As additional information we have attached the sites of 2 UC campuses: Irvine (*attachment 13*) and Santa Barbara (*attachment 14*).

#### It is the Law:

California is ahead of the curve in the United States. Governor Schwarzenegger issued Executive Order S-20-04 in December 2004 (*attachment 15*) which ordered that: “*The state commits to aggressive action to reduce state building electricity usage by retrofitting, building and operating the most energy and resource efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded or leased by the state and to encourage cities, counties and schools to do the same.*” The Governor then issued Executive Order S-3-05 in June 2005 (*attachment 16*) to reduce greenhouse gas emissions. California State University is requested to actively participate.

The California Global Warming Solutions Act of 2006 (AB32) (*attachment 17*) followed next. It establishes a “*comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases (GHG).*” Among other things it requires the Air Resources Board (ARB) to establish a statewide emissions cap, adopt mandatory reporting rules, adopt a plan by January 1 2009 and adopt regulations by January 1, 2011. These requirements affect Cal State Fullerton directly and we need to be prepared to deal with them.

The CSU responded with Executive Order No. 987 issued by Charles Reed in August 2006 (*attachment 18*). It is a policy statement on energy conservation, sustainable building practices, and physical plant management for the California State University. It sets a new goal to reduce energy consumption by 15% by the end of FY 2009/10 as compared to 2003/04. EO987 also sets goals for energy independence and for the procurement of renewable energy. In May 2007, the Chancellor’s Office issued a Memorandum (*attachment 19*) that compared AB 32 and the Presidents Climate Commitment with CSU actions. It provides a good overview of some of the difficulties with the Presidents Climate Commitment in particular achieving climate neutrality.

In June of this year Governor Schwarzenegger issued Executive Order S-06-08 (*attachment 20*) proclaiming drought and ordering immediate action to address the situation: “*We must work together to ensure that California will have safe, reliable and clean water not only today but 20, 30, and 40 years from now.*”

## Recommendations

The Sustainability Initiative Study Group makes the following recommendations:

1. **Sign the Presidents Climate Commitment.** We recognize that it may be challenging at best for Cal State Fullerton to become carbon neutral in the foreseeable future given the fact that we are a commuter campus and we do not have much control over a large component of our carbon output. Nevertheless, it is important that we commit to setting attainable goals in order to become a leader in our community in addressing the issues of sustainability and climate change. There are 582 signatories to date and they have committed to do the following:
  - a. Initiate the development of a comprehensive plan to achieve climate neutrality as soon as possible.
  - b. Initiate two or more tangible actions to reduce greenhouse gases while the more comprehensive plan is being developed.
  - c. Make the action plan, inventory, and periodic progress reports publicly available by providing them to the Association for the Advancement of Sustainability in Higher Education (AASHE) for posting and dissemination.

We feel that these are reasonable commitments. We also believe that now is the time for urban, commuter campuses, such as our own, to take actions on issues we can control to address sustainable practices while working over the long term with others to reduce the transportation impacts on sustainability. Cal State Fullerton should therefore join the other signatories and sign the Commitment.

2. **Recognize the importance of educating all members of society on the issue of sustainability.** There is a strong component of social justice to this issue and the University should be a frontrunner in providing opportunities for everybody to participate and be leaders. Traditionally, in the United States, environmental causes and issues have been promoted and backed primarily by affluent, environmentally-conscious Americans. Achieving sustainability on a global scale presents significant challenges, particularly in the face of climate change. We need to recognize that climate change will have a greater negative impact on weaker elements in our society, and some cultures may be hit harder than others. We need to reach out, educate and enlist all members of society and make sure that they understand the importance of a broad participation in this process to achieve socially and economically equitable solutions.
3. **Develop and adopt a Cal State Fullerton Sustainability Policy.** This is perhaps a prerequisite before we do anything else. Signing the Presidents Climate Commitment is important. It can function as a document to help us set priorities, but in addition, we need to establish our own policy providing more specific direction to the divisions and departments. An example of such a policy has been attached to show that it doesn't have to be extensive and complicated.

4. **Integrate sustainability into the University's mission, goals and strategic planning process.** Even though sustainability clearly fits in well with our current Mission, Goals, and Strategies statement it needs to be explicitly addressed as a parameter that guides Cal State Fullerton's planning efforts. We need to continuously review the University's sustainability related activities to assess if our measures are working effectively and use the internal feedback to guide future planning. Relevancy depends on our ability to be a leader in the community of higher education and the regional community and therefore sustainability must become one of our core guiding principles when we discuss the University's future.
5. **Develop a curriculum that will educate our students on the challenges of ensuring a sustainable future.** Climate change will trigger significant changes in all facets of society and it will make sustainability an even more important and challenging goal to achieve. Our students need to understand the issues to help them make informed decisions in their personal lives as well as in the public arena. Since this is a global issue, a global perspective of sustainability should be a high priority. This also means that the development of sustainability programs and the incorporation of sustainability into our courses will contribute to the globalization of Cal State Fullerton's curricula.
6. **Promote research that includes sustainability as a core subject.** Sustainability affects every aspect of life and therefore every college of our University should be able to find ways to include sustainability in their research endeavors. Many companies and agencies as well as private sponsors are interested in funding programs that will help find ways to solve the complex issues we are facing.
7. **Create opportunities for our students to become successful in emerging fields of employment and entrepreneurship.** With all the challenges also come many opportunities. New fields are emerging that require expertise in sustainability and this will continue to be the case for a long time. Cal State Fullerton needs to help students recognize these new opportunities and provide pathways to prepare them to be successful in the new industries. Departments and colleges need to examine ways to develop new programs that provide the education and skill sets needed for our students to compete for jobs in these emerging industries.
8. **Continuously educate faculty and staff.** To provide the students with an education that will help them succeed in their personal endeavors while building a sustainable society it is important that our faculty and staff are well versed in all aspects of the issues of climate change and sustainability. Through workshops, webinars and seminars we need to continually update the collective knowledge bank so that we create a learning environment with sustainability as a core principle.

9. **Collaborate with other universities and academic institutions.** Sustainability is by no means a local issue; it is, in fact, very much a global problem. We have developed relations with Universities all over the world. We must use these relations to learn from each other and work together to advance knowledge of sustainability and implement sustainable best practices. This will help us better understand the global scale of the issues and the specific needs for different regions in the world.
10. **Reach out to our local community.** Even though we deal with a global problem and we need to try to understand its magnitude, we very much need to act locally. Cal State Fullerton can generate much activity on a city and county level and we should invite as much participation as possible from local authorities, school districts and the like. We should make it clear that our University wants to be a player and join other teams in our vicinity. We can work together in many ways, such as educating our community about sustainability, improving public transportation, and helping our region to become more sustainable.
11. **Sign the Talloires Declaration.** The Talloires Declaration is different from the Presidents Climate Commitment in that it is less pre-occupied by climate neutrality and timetables, and more focused on the role of higher education building a sustainable society. Since it is an international document it fits with our University's desire to think more globally.
12. **Establish a Cal State Fullerton Sustainability Office.** The issues of climate change and sustainability will grow steadily in importance for years to come. The university needs to be organized in order to deal with all the impacts. There are many issues that need to be coordinated across the campus and with a variety of other agencies. It is important that people know where to go on campus for information about sustainability and for an office to coordinate sustainability issues. We also need to keep track of progress on the goals we set for ourselves and compliance with applicable laws and executive orders. The office should be managed by a director level position or higher, responsible for the development of a comprehensive and cohesive approach to sustainability. We suggest that the office should be in a central location and accessible to faculty, staff, students and visitors.
13. **Establish a Cal State Fullerton Sustainability Committee.** Recognizing the magnitude of the sustainability issue we recommend that a committee with broad representation be formed to make recommendations to the Sustainability Director. We envision that the committee would include members of local communities and organizations outside of Cal State Fullerton. The Director will keep the committee informed on the progress of the current issues on the one hand and will take new proposals forward on the other.

14. **Support initiatives so that our University becomes more sustainable.** We understand that the campus is facing very difficult budget decisions. However, it is very important to make sure that funds are made available to support sustainability. This first year the University should consider allocating \$100,000 for hiring a director and initial start up costs and allocate suitable space for supporting a sustainability office.
15. **Create a campus culture that supports sustainability.** We need to strike the right balance between departmental responsibility towards achieving a sustainable environment and the role of the Sustainability Committee and Director. Within every Division, initiatives that promote sustainability should be encouraged and positively supported and rewarded. There needs to be a positive focus for changing behavior and we could create incentives to help change the awareness and acceptance of sustainability.
16. **Create a campus culture of accountability.** We are fully aware that sustainability is just another issue competing for campus resources. Because of the gravity of this issue it is critical that we measure our performance. As we set goals for ourselves the University must engage a system of measuring performance that will be applied to the individual goals as well as over-arching campus wide initiatives. The Balanced Score Card is one such system but we could use others and allow divisions to come up with their own. The Sustainability Office could develop a dashboard to measure progress and stay on top of the issues. AASHE has a system to measure how universities are doing in comparison with each other. The important thing is that our progress gets recorded, attention is focused, and visibility of the issues is achieved.
17. **Install a Sustainability Action Task Force.** The purpose of this committee is to function as a transitional team and get the process of institutionalization started. This report will hopefully provide enough information to give us direction. However, we realize that the recommendations put forward in this report are significant in that resources are required and will need to be mobilized. While we collectively get our arms around this and start to quantify the various responsibilities, this task force can start working on paving the road: identify all the constituents, write job descriptions, modify the University's Mission, Goals and Strategies statement to explicitly include sustainability, create a webpage and function as a general resource to start filling in the specifics regarding the recommendations mentioned in this report and others that may follow. The Sustainability Action Task Force should be similar in size to the SISG and have representatives from each Division, Academic Senate and Student Body. This task force should stay in place until the Sustainability Director has been hired and the Sustainability Committee has been formed.

*“The societal benefits derived from higher education have never been more needed: California and the nation require healthy, engaged individuals who are involved in their communities and committed to sustainability—and who model the values of courtesy and respect for diversity, diverse views, and open dialogue.”*

- Access to Excellence

## Resources

The resources mentioned here are just the “tip of the iceberg.” The proliferation of organizations, coalitions, businesses, magazines, and so on that have embraced sustainability are simply overwhelming and cannot be given justice in this report. They indicate, though, how important this issue has become in the United States, and how important it is for us to get involved as a real player.

We took a brief look at the 2007 Intergovernmental Panel on Climate Change (IPCC) Report on global warming (*attachment 21*) and learned that: “*Some planned adaptation of human activities is occurring now; more extensive adaptation is required to reduce vulnerability to climate change. Unmitigated climate change would in the long term be likely to exceed the capacity of natural, managed and human systems to adapt.*” The report states the case for the urgency of and necessity for changing the way we do business: “*Making development more sustainable by changing development paths can make a major contribution to climate change mitigation and adaptation and to reducing vulnerability.*” The report highlights the enormous complexities of how the human systems and earth systems interact and the need for a better understanding of this delicate balance and the preservation of it.

The Higher Education Sustainability Act (HESA) of 2007 (*attachment 22*) stresses the role of higher education as “*a key tool in catalyzing innovation and growth in the American business center. Higher education produces the professionals who develop, lead, manage, teach, work in and influence society’s institutions. Thus, when focused on the principles and practices of sustainable development, higher education can assist the US business sector by providing a workforce educated in sustainable and innovative technology, economic analysis, employee and entrepreneurial development, and business strategy.*” HESA challenges us to change our ways, keep our eyes wide open and put a plan and a curriculum together that will help us face the future with optimism.

In “A Call for Climate Leadership” (*attachment 23*) a case is made to join the Presidents Climate Commitment: “*The American College & University Presidents Climate Commitment is a high-visibility effort to address global warming through a joint commitment to achieve climate neutrality for their campuses and develop the capability of society to do the same. These presidents are leading their institutions to develop comprehensive plans for making their campuses climate neutral, and for providing the education and research necessary for society to re-stabilize the world’s climate.*” The nation needs all the leadership it can get and signing the Commitment will establish Cal State Fullerton as one of the many institutions willing to take on the “defining challenge of our time”.

The Talloires Declaration (*attachment 24*) addresses the civic roles and social responsibilities of higher education and we should consider imbedding its core principles in our values statement. The declaration stresses the responsibility of higher education to “*foster in faculty, staff and students a sense of social responsibility and a commitment to the social good, which, we believe, is central to the success of a democratic and just society.*”

The United States Green Building Council (USGBC) (*attachment 25*) developed Leadership in Environmental and Energy Design (LEED) which has become the standard for “green” construction. On our campus the Student Recreation Center is the best example of a green building as consolidated team efforts may lead to a Certified Gold LEED building. The reason for that high achievement lies with the foresight of the excellent design and construction team, and the Associated Students who were committed to compliance with a LEED certification.

Last year Cal State Fullerton became a member of the Association for the Advancement of Sustainability in Higher Education (AASHE) (*attachment 26*). This organization is a great resource for a campus community like ours if we want to learn what other universities are doing, if we are looking for business partnerships or if we want to know what learning opportunities are available. They’ve also developed a Sustainability Tracking, Assessment & Rating System (STARS) so universities can track their progress.

The National Wildlife Federation (*attachment 27*) just issued their second annual Campus Environment 2008 report. With over 1,000 campuses participating, it provides a comprehensive look at the trends in higher education. The purpose of the survey is to explore the extent to which college and university leaders value environmental performance and sustainability and are putting these values into practice. The results indicate a mixed bag of progress but one of the more positive findings was that university leaders value environmental, social and economic sustainability considerably more now than in 2001.

The Apollo Alliance (*attachment 28*) is a coalition of business, labor, environmental, and community leaders working to catalyze a clean energy revolution in America to reduce our nation’s dependence on foreign oil, cut the carbon emissions that are destabilizing our climate, and expand opportunities for American businesses and workers. *“Inspired by the vision and technological achievements of the Apollo space program, we promote policies and initiatives to speed investment in clean energy technology and energy efficiency, put millions of Americans to work in a new generation of well-paid, green collar jobs, and make America a global leader in clean energy products and services.”* The Apollo Alliance is an example of an organization that recognizes the new opportunities as a result of changing demands, ideas and technologies. It brings together a broad spectrum of organizations and businesses that are very different in nature but recognize that we’re all in it together. The Apollo Alliance also links sustainability with the issue of social justice and sees a chance to help lift people out of poverty through the creation of “green collar” jobs.

A recent Shell Energy Scenarios to 2050 (*attachment 29*) report by oil giant Royal Dutch Shell makes for sobering reading. In its worst-case scenario, Shell predicts that the coming decade will see the world's governments engaged in an increasingly desperate and ruthless "scramble" to secure energy supplies and natural resources, one that could trigger a new wave of global conflict and massive environmental destruction. Shell's alternative scenario has governments banding together to create "blueprints" for the future that embrace sustainability. *“Growing local actions begin to address the challenges of economic development, energy security and environmental pollution. This will require hard work, and time is short. We urgently need clear thinking, huge investment, and effective leadership.”* warns Shell CEO Jeroen van der Veer. In other words, humans are at a juncture: blueprint or scramble?

*“In order to qualify and compete for jobs in an increasingly diverse global workforce and in order for our graduates to be global citizens and diplomats to promote world understanding, we must create opportunities for students to enhance their global perspectives and intercultural competencies.”*

- President Milton Gordon  
- University Convocation 2008



## Conclusion

Sustainability has moved to the forefront of the general public's attention over the last couple of years. After a group of scientists came to the conclusion that with a 90% certainty the climate changes the earth is experiencing are the result of the human generated output of green house gases, the debate has grown exponentially. We refer to it when we talk about Hurricane Katrina, and Presidential candidates have this issue high on their agendas. Large oil companies are advertising that they recognize and understand the problem and are working on solutions. The political ramifications of our dependency on oil, particularly oil from countries not necessarily friendly to the West, are debated every day. It appears that our future has become less certain.

This puts higher education in particular, in a precarious position. Universities are held in high esteem because they contribute to society in many ways. They educate people so they can have productive lives and careers and move society forward. Through research, universities contribute to the vast body of knowledge on which many of our decisions are based. Most people have trust that the intelligence created through the interactions between various branches of government, private enterprise and educational institutions will help the country and the world move in a positive direction.

Sustainability is an issue that may challenge that trust. We have stumbled upon a new crossroad. We have learned that there are limitations to what we as humans can do to the earth we live on and are a part of. Now the question is: What are we going to do with that knowledge? The questions range from how can we reduce our carbon footprint, to what kind of economy will support a sustainable society, to how can we make sure that we maintain and improve equity in a world that is already very unequal? We have a great responsibility to use all the resources we can muster to help our state, and the rest of the world, confront and address these questions.

This is an issue that will stay around for quite a while. Sustainability is not a topic we just like to talk about because it is politically correct or in vogue. This will not fade away and be forgotten by next year. The evidence is overwhelming that we are dealing with a problem that will threaten our lifestyles and even our very existence.

*“The challenges ahead are simultaneously daunting and exciting. Meeting them will require leaders in the CSU and in the State to focus on how best to use the institution's assets to meet the public priorities so critical to California's future. There is much strength from which to build within the CSU.”*

- Access to Excellence

*“At Chico State, we are dedicated to sustainable development as a means of balancing human social, cultural, and economic needs with the natural environment by respecting the finite natural resources of this planet and living in harmony with other humans and species now and into the future. We strive to become leaders in achieving a new vision of education, which integrates the principles of sustainable development into the academic programs, practices, and collaborations of our university.*

- Chico State

## Attachments

1. Letter from President Milton Gordon
2. Brundtland Commission
3. Mission & Goals Proposal
4. Mission, Goals & Strategies Statement
5. Academic Senate Ad Hoc Sustainability Committee Proposal
6. Pomona's Climate Commitment Task Force
7. Arnold Schwarzenegger Proclaims Drought
8. Student Recreation Center
9. American College and University Presidents Climate Commitment
10. California State University Fresno Subcommittee on Campus Sustainability
11. Cal Poly Pomona
12. California State University Chico
13. UC Irvine
14. UC Santa Barbara
15. Executive Order S-20-04
16. Executive Order S-3-05
17. California Global Warming Solutions Act of 2006 (AB32)
18. Executive Order No. 987
19. May 2007 Chancellor's Memorandum
20. Executive Order S-06-08
21. IPCC Report on Global Warming
22. Higher Education Sustainability Act of 2007
23. A Call for Climate Leadership
24. The Talloires Declaration
25. United States Green Building Council
26. Association for the Advancement of Sustainability in Higher Education
27. National Wildlife Federation
28. Apollo Alliance
29. Shell Energy Scenarios to 2050

*“If 98 doctors say my son is ill and needs medication and two say ‘No, he doesn’t he’s fine’, I will go with the 98. It is common sense – the same with global warming. We go with the majority, the large majority. The key thing now is that since we know this industrial age has created it, let’s get our act together and do everything we can to roll it back.”*

- Gov. Arnold Schwarzenegger