



Citrus Community College Sustainability Plan



Produced by the
Citrus College Sustainability Committee

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SECTION 1.

EXECUTIVE SUMMARY

As with many public sector agencies, Citrus Community College recognizes the environmental, economic, and social benefits of resource efficiency and sustainability. The passage of the California Global Warming Solutions Act (AB-32) in 2006 and the establishment of a Sustainability Policy by the CCC Board of Governors have made it imperative for California Community Colleges to develop an organized, comprehensive approach that incorporates the elements of sustainability, satisfies state regulations, takes advantage of available resources and complimentary programs, and adopts the Best Practices of others who are further along this path.

To meet these challenges, Citrus College has participated in the development of the California Community Colleges Sustainability Template. The culmination of the project is the Pilot Demonstration of the Template at Citrus College and the development of this campus-specific Sustainability Plan.

Sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” The purpose of this Sustainability Plan is to prepare Citrus Community College for the anticipated environmental and regulatory challenges of the 21st century, to guide the campus towards becoming a more sustainable institution, and to prepare students for the green economy.

The following Sustainability Plan articulates the mission and goals established by the College for sustainability, as well as the strategies to meet these goals. This Plan has been developed by the Citrus College Sustainability Committee, which includes students, faculty, and staff. The Committee has developed this Sustainability Plan in coordination with the many different campus stakeholders to ensure that the plan meets the different needs of the College.

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Sustainability Mission Statement

Citrus College will promote an active learning and participatory environment, where students, faculty and staff are immersed in quality education and collaborate with peers and industry professionals to encourage and create sustainability awareness and social responsibility, thereby fostering the advancement of sustainable practices and conservation of resources for the college proper, community and nation as a whole.

SECTION 2. BACKGROUND

2.1 HISTORY OF SUSTAINABILITY EFFORTS TO DATE

Citrus College has been at the forefront of sustainability since the mid 1990's and has made significant strides in energy efficiency. As new technologies are developed, the College has installed energy efficient lighting, installed and maintained Heating Ventilation and Air Conditioning (HVAC) and lighting Energy Management Systems, installed lighting motion sensors throughout the campus, installed lighting control systems in classrooms, implemented server and desktop virtualization, designed all new buildings to a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Silver equivalent rating, constructed a new central plant with chilled water storage to be used during peak hours for heating and cooling, installed energy efficient boilers, and connected existing buildings to the central plant. Citrus College continues to identify new sustainable technologies for the built environment and promotes sustainable practices with students, faculty and staff.

While the primary focus of campus efforts have been in energy conservation, there are many other areas of sustainability where active programs are being implemented. With the assistance of a state grant, Citrus College has also developed a sophisticated recycling program and constructed a materials recycling facility on campus to sort recyclables from the campus waste stream. The College has implemented water conservation strategies and storm water pollution prevention measures, and has adopted a green purchasing program for cleaning and custodial supplies. Finally, the Citrus College administration has been involved with the Los Angeles Metropolitan Transportation Agency (MTA) in the advance planning of the Gold Line light rail extension and a station adjacent to the college which will provide the opportunity to significantly reduce single occupancy vehicle commutes by students, faculty, and staff.



For a complete listing and description of existing Citrus College sustainability efforts see the Implementation Programs and Plans Checklist, which is in Appendix 2.

2.2 CREATION OF THE SUSTAINABILITY PLAN

To create this Sustainability Plan, Citrus College followed the process and utilized the tools provided in the California Community Colleges Sustainability Template. The process is illustrated in the flow chart above. The

implementation of the sustainability planning process and the resulting Sustainability Plan are described in the following chapters.

2.3 THE POLICY CONTEXT OF SUSTAINABILITY PLANNING

Sustainability can provide environmental, economic, and social benefits to campuses. However, there are other motivations for Citrus College to pursue these practices. The State of California has been active in establishing aggressive policies and standards for environmental protection and reducing greenhouse gas (GHG) emissions that contribute to global warming. In 1970, the State adopted the California Environmental Quality Act (CEQA) with the goal to inform governments and the public about potential environmental impacts of projects. From 2005 onward, legislation has been passed to directly regulate GHG emissions by utilizing incentive mechanisms, cap-and-trade programs, and mandatory reporting while encouraging voluntary activities such as purchasing emissions offsets and offering renewable energy certificates (RECs). Compliance with state policies and regulations regarding these issues are an important factor for consideration by Citrus College.

The following sections outline the numerous policy and regulatory drivers that contributed to the creation of this Plan.

2.3.1 CCC BOARD OF GOVERNORS ENERGY AND SUSTAINABILITY POLICY

To encourage the CCCs to pursue a more sustainable future, the CCC Board of Governors approved the Energy and Sustainability Policy in January 2008, which puts forth goals for each campus to reduce their energy consumption from its 2001-02 baseline by 15 percent by 2011-12. It also sets goals for minimum efficiency standards of new construction and renovation projects and provides an incentive of 2 percent of construction cost for new construction projects and 3 percent of construction cost for modernization projects. The policy also sets goals for energy independence through the purchase and generation of renewable power and energy conservation through the pursuit of energy efficiency projects, sustainable building practices, and physical plant management.

The CCC Board of Governors Energy and Sustainability Policy can be found here:

http://www.cccco.edu/Portals/4/Executive/Board/2008_agendas/january/3-1_Attachment_CCC%20Energy%20and%20Sustainability%20Policy%2011-9-07%20FINAL.pdf

2.3.2 CALIFORNIA STATE CLIMATE REGULATIONS

2.3.2.1 *State of California Executive Order S-3-05*

Executive Order S-3-05 was signed by the Governor of California in 2005, thereby identifying the California Environmental Protection Agency (Cal/EPA) as the primary state agency responsible for establishing climate change emission reduction targets throughout the state. The Climate Action Team, a multi-agency group comprised of various state agencies, was formed to implement the Executive Order S-3-05. Shortly thereafter in 2006, the team introduced GHG emission reduction strategies and practices to reduce global warming. These measures are aimed at meeting the Executive Order's long term goal of reducing GHG emission to 80 percent below 1990 levels by 2050.

2.3.2.2 Global Warming Solutions Act of 2006 (AB-32)

The Global Warming Solutions Act, or Assembly Bill 32 (AB-32) adopted in 2006, establishes two key requirements in regard to climate change reduction measures. The first requires that California GHG emissions be capped at 1990 levels by 2020, and the second establishes an enforcement mechanism for the GHG emissions reduction program with monitoring and reporting implemented by the California Air Resources Board (CARB).

In 2008, the Assembly Bill 32 Scoping Plan was released by CARB which describes measures to implement the requirements set by AB-32. In addition to partnering with local governments to encourage the establishment of regional emission reduction goals and community regulations, the Scoping Plan uses various mechanisms to reduce emissions state-wide, including incentives, direct regulation, and compliance mechanisms.

2.3.2.3 Assembly Bill 1493 (The Pavley Bill)

Assembly Bill 1493, widely known as “The Pavley Bill”, was passed in 2002 and authorizes CARB to establish regulations to reduce the GHG emissions from passenger cars and light trucks by 18 percent by 2020 and 27 percent by 2030 from 2002 levels. This aggressive bill was temporarily blocked by the US EPA in March 2008 and later received a waiver of approval for implementation throughout California in June 2009.

2.3.2.4 Low Carbon Fuel Standard (LCFS)

The Low Carbon Fuel Standard (LCFS) was established in January 2007 by Executive Order S-01-07 and requires California fuel providers to decrease lifecycle fuel carbon intensity of transportation fuels by 10 percent from 2007 levels by 2020.

2.3.2.5 California Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill 1078 and mandated that electrical corporations increase its total procurement of eligible renewable resources by at least 1 percent a year to reach a goal of 20 percent electricity generation from renewable resources. These goals were accelerated in 2006 under Senate Bill 107, which mandated that at least 20 percent of the total electricity sold be generated from renewable resources by the end of 2010. The RPS was further extended in 2008 by Executive Order S-14-08, which requires that 33 percent of total electricity sales be generated from renewable resources by 2020.

2.3.2.6 Senate Bill 97

Senate Bill 97, passed in 2007, required the Governor’s Office of Planning and Research (OPR) to develop and recommend amendments to CEQA Guidelines for addressing GHG emissions related to land use planning. The amendments to CEQA were approved and became effective in March 2010, thereafter requiring all CEQA documentation to include and comply with the new amendments established for addressing greenhouse gas emissions.

2.3.2.7 Senate Bill 375

Senate Bill 375 was passed in 2008 to reduce GHG emissions caused indirectly by urban sprawl throughout California. The bill offers incentives for local governments to execute planned growth and development patterns around public transportation in addition to revitalizing existing communities. Metropolitan Planning Organizations (MPOs) will work with CARB to reduce vehicle miles traveled by creating sustainable urban plans with a comprehensive focus on housing, transportation, and land use. Urban projects consistent with the MPO's Sustainable Community Strategy (SCS) can bypass the CEQA's GHG emission environmental review. This provides developers with an incentive to comply with local planning strategies which support the State's greater effort for overall emission reduction in the land use and transportation sector.

2.3.2.8 Regional Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMD)

In 1947, the California Air Pollution Control Act was passed and authorized the creation of Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs) in every county. APCDs and AQMDs are tasked with meeting federal and state air pollution requirements set by the Clean Air Act and can develop regulations to achieve the necessary public health standards, though these regulations need approval from CARB and the US EPA. APCDs and AQMDs have jurisdiction over businesses and stationary sources of emissions and can offer varying levels of outreach, grants, and CEQA review and technical assistance to interested public and private parties. The APCDs and AQMDs do not have the authority to regulate mobile air pollution sources, which is the responsibility of CARB, and must defer to state or federal regulations provided by the California Air Resources Board and the U.S. Environmental Protection Agency.

2.4 CAMPUS SUSTAINABILITY COMMITTEE

In order to manage the process and to develop this Sustainability Plan, the campus established the Citrus College Sustainability Committee, consisting of faculty from the Physical and Natural Science Department, Career Technical and Continuing Education Department, Student Services, staff from college administration, the Facilities Department, and students from the Earth Club, Volunteer Corps and the DEEP intern program to provide representation from the different campus stakeholders. The Committee will be responsible for developing and implementing the sustainability programs and projects described in this Plan to achieve the sustainability goals.

SECTION 3.

MISSION STATEMENT, GOALS, AND PRIORITIES

The Campus Sustainability Committee has developed the following Sustainability Mission Statement to guide Citrus College in its Sustainability Planning efforts.

Citrus College will promote an active learning and participatory environment, where students, faculty and staff are immersed in quality education and collaborate with peers and industry professionals to encourage and create sustainability awareness and social responsibility, thereby fostering the advancement of sustainable practices and conservation of resources for the college proper, community and nation as a whole.

On April 3, 2012, the Citrus Community College Board Of Trustees made a commitment to improve college sustainability by adopting the Sustainability Mission Statement by Resolution No. 2011-12-08.

To realize this Mission Statement, the Sustainability Committee has defined the following sustainability goals and priorities. The goals and priorities for the Sustainability Plan reflect campus needs, interests, and available resources. The Goals listed are not necessarily ranked by priority. Priorities for all goals and implementation programs are contained in the Implementation Programs and Plans Checklist contained in Exhibit 2.

Sustainability Plan Goals and Criteria

Goal Number	Area of Sustainability	Established Goal
1	Economic Return on Investment	Evaluate the return on investment of capital improvements in sustainability based on life-cycle Net Present Value (NPV).
2	Energy Efficiency	Reduce overall campus energy consumption by 6 percent within two years. Establish new reduction goals after two years based on planned activities and additional opportunities.
3	The Built Environment	Construct all major capital projects to meet LEED Silver “equivalent” standard, with goals to reduce energy and water use, wastewater discharges, and sustainable landscaping practices.
4	Technology Utilization	Continue to take advantage of new technologies in all areas of waste reduction, energy usage and sustainable culture.
5	Leadership and Champions	Identify campus community members who will be enthusiastic, involved, reasonable, and responsible to lead the campus in its sustainability efforts and to set the example for generations to come.

Goal Number	Area of Sustainability	Established Goal
6	Solid Waste Management	Continue to implement the recycling program, expand it to include all sectors of recycling and waste reduction to landfills, comply with recycling program requirements of AB-341, and strive to meet the statewide landfill diversion goal of 75 percent by 2020.
7	Transportation	Reduce the reliance of students, faculty and staff on single occupancy vehicle commutes by 5 percent within the next five years. Encourage the utilization of public bus and rail transportation, car pooling, and bicycling to campus.
8	Communication and Education	Develop and implement a program to raise awareness in the campus community to inspire behavioral changes to enhance sustainability. Program will be initiated by the fall 2013 semester.
9	Campus and Community Involvement	Increase community awareness and support of the College sustainability efforts through the use of targeted media. Program will be initiated by the fall 2013 semester.
10	Curriculum	When appropriate to a program of study, encourage the inclusion of sustainability content (social responsibility, sustainable development strategies, and carbon management) into curriculum and/or instructional material.
11	Continuous Improvement	Citrus College will improve existing sustainability efforts by analyzing and auditing current activities to identify changes to processes and to increase effectiveness and to develop future goals. Analysis of energy and water usage and solid waste management programs will be completed by January 2014.
12	Greenhouse Gas Reduction	Continue to reduce Greenhouse Gas emissions through the implementation of the Citrus College Sustainability Plan. Consider a future Climate Action Planning process to meet AB-32 requirements.

The goals and criteria established for the Sustainability Plan will be monitored during Plan implementation as described in Section 5, "Monitor and Report Performance".

SECTION 4.**PROGRAMS AND PROJECTS FOR IMPLEMENTATION**

Based on the goals and priorities described in Section 3, the Sustainability Committee has selected the following programs and projects for implementation to actively improve campus sustainability.

These programs and projects are also reflected in the Implementation Programs and Plans Checklist, located in Appendix 2, which outlines the details of each action item, its priorities, responsibility for implementation, schedules, and estimated cost of each program or project. The Checklist will be used by the Sustainability Committee to manage the implementation process.

These key actions were selected from a menu of suggested programs and projects from Section 7 of the California Community College Sustainability Template. As a result, the major headings and individual programs and projects are numbered to reflect the numbering system outlined in the Template and Implementation Planning Checklist.

7.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE

In order to implement an effective Sustainability Plan, it will be important for Citrus College to have a policy mandate for sustainability, the institutional structure required to manage the process, and the financial and programmatic expertise to accomplish Plan goals. The College will implement the following programs to meet this requirement.

7.1.2.1 ADOPT A DISTRICT SUSTAINABILITY POLICY

The Citrus CCD Board of Trustees adopted a Sustainability Mission Statement and expressed its support for the development of this Sustainability Plan by passing Resolution No. 2011-12-08 at its April 3, 2012 meeting. This provides the policy mandate for the Sustainability Committee and the College at large to create and implement the Citrus College Sustainability Plan.

7.1.2.3 APPOINT A CAMPUS SUSTAINABILITY COMMITTEE

The Campus Sustainability Committee, consisting of students, faculty, and staff was established in March 2012 to develop the Sustainability Plan and to manage and track its implementation. The Committee will meet bi-monthly for the foreseeable future to implement the Plan and to report progress to the college community. A complete listing of committee members is included in Appendix 1.

7.1.2.5 EMPLOY SUSTAINABILITY PROFESSIONALS, AS REQUIRED

Many of the programs and projects that will be implemented as part of the Sustainability Plan will require expertise that the college does not possess. As needed, the Sustainability Committee will recommend to college administration if specialized professional assistance is required to accomplish the goals of the Plan.

7.1.2.7 INTEGRATE SUSTAINABILITY PLANNING INTO CAMPUS MASTER PLAN

The Educational and Facilities Master Plan and sustainability planning should be integrated and simultaneous. As the Educational and Facilities Master Plan is reviewed and revised, elements of the Sustainability Plan will be incorporated to ensure that the college goals for sustainability are reflected in this over-arching planning document.

7.2 ENERGY EFFICIENCY

Energy efficiency is one of the most cost effective ways to reduce campus energy use and its carbon footprint. When implemented properly, efficiency measures can decrease energy use without compromising comfort and can improve indoor air quality and enhance student, faculty, and staff performance. Energy efficiency will be a higher priority than renewable or other on-site energy generation due to more favorable economics and to avoid over-sizing renewable energy systems.

The following energy efficiency programs and projects will be implemented at Citrus College.

7.2.2.1 SET ENERGY EFFICIENCY GOALS

It is important to set goals for the reduction of any resource in order to define success. During the development of the Sustainability Plan, one of the key goals established by the Sustainability Committee was to *“Reduce overall campus energy consumption by 6 percent within two years. Establish new reduction goals after two years based on planned activities and additional opportunities”*. The College’s Director of Facilities and Construction will be responsible for the implementation and monitoring of this goal.

7.2.2.2 EVALUATE MECHANISMS FOR THE IMPLEMENTATION OF ENERGY EFFICIENCY PROJECTS

Citrus College will evaluate various mechanisms for the identification and implementation of energy efficiency projects and programs, including the use of in-house staff, engineering consultants, and contractors. The College has already been successful in leveraging expertise and resources from Southern California Edison and the CCC/IOU Energy Efficiency Partnership for the identification of energy savings projects on the campus.

7.2.2.3 CONDUCT A FACILITY PRIORITIZATION SURVEY

The College’s Director of Facilities and Construction is currently performing a Facility Prioritization Survey of the campus. The survey will be used to establish priorities for conducting comprehensive facility energy audits, which are currently planned by Southern California Edison. Buildings will be prioritized based on energy use intensity (EUI) (i.e. electricity and natural gas use per gross square foot per year), with buildings with the highest energy use intensity given highest priority. Where metered data does not exist, those buildings that are believed to be high energy users by college staff will be targeted first.

7.2.2.4 CONDUCT COMPREHENSIVE FACILITY ENERGY AUDITS

As described above, plans are in place to perform comprehensive energy audits at targeted facilities on campus in the very near future. These audits will be performed by Southern California Edison (SCE) and the CCC/IOU Energy Efficiency Partnership. An audit report will be issued by SCE and will identify low cost and no cost energy efficiency improvements, as well as retrofit and capital improvement project opportunities with detailed energy savings and economic calculations.

7.2.2.5 IMPLEMENT NEW AND EXISTING AUDIT RECOMMENDATION

Based upon the results of the audits and available resources, the College will initiate implementation of the audit recommendations. Priorities will be determined by current energy usage, return on the investment, and available resources.

7.2.2.8 IDENTIFY AND TAKE ADVANTAGE OF GRANT AND INCENTIVE PROGRAMS

The College has been and continues to be an active participant in the CCC/IOU Energy Efficiency Partnership incentive program, SCE Savings by Design program, and actively explores and takes advantage of grants where appropriate.

7.2.2.9.2 EFFICIENT LIGHTING AND LIGHTING CONTROLS

Citrus College has performed a variety of energy efficient lighting retrofit projects in recent years, including state-of-the art classroom and office lighting. The College is currently working with the CCC/IOU Partnership on an advanced LED exterior lighting pilot project which will result in a “piggy-back” RFP that can be used by any CCC campus.

7.3 FACILITIES OPERATION

In addition to installing energy efficient equipment, Citrus College strives to operate high-performing facilities, buildings, and energy infrastructure systems that are optimized for inhabitant comfort, productivity, and energy and resource efficiency. Current and planned activities in this area are described below.

7.3.2.1 ENCOURAGE AND SUPPORT ENERGY EFFICIENCY TRAINING OF STAFF

As part of the personnel development program, Citrus College continues to train and keep facilities staff abreast of the latest in energy saving maintenance measures and technologies.

7.3.2.2 INSTALL ENERGY MANAGEMENT SYSTEMS

Citrus College has installed a computerized Energy Management System (EMS) to provide centralized reporting and control of campus energy related activities. Campus staff strives to achieve optimum efficiency in the use of natural gas, electricity, or other energy resources to meet the heating, cooling, and lighting needs of the

buildings and facilities. The existing EMS system that controls lighting and HVAC was installed many years ago and is continually maintained and updated as necessary. The long term plan when resources become available is to expand and upgrade the EMS system.

7.3.2.5 OPTIMIZE HVAC EQUIPMENT SCHEDULING

Citrus College employs a scheduled maintenance and operations plan for the HVAC equipment and building occupancy scheduling to avoid cooling and heating spaces when unnecessary. The planned Retro-commissioning (RCx) project for the central plant chilled water and hot water systems will further improve optimization of HVAC systems.

7.3.2.6 ACTIVATE ENERGY-SAVING FEATURES FOR APPLIANCES AND COMPUTERS

The College activates energy-saving features on all appliances and computer equipment, such as power-saving modes on PCs, copiers, printers, and other office equipment. Citrus College has installed server and desktop virtualization and PC power management systems to reduce computer energy use. The college has also installed plug load occupancy sensor strips at work stations to further reduce energy use of office and classroom equipment.

7.3.2.7 PURSUE MONITORING-BASED COMMISSIONING (MBCX)/RETRO-COMMISSIONING (RCX)

Citrus College is participating in a Southern California Edison Retro-commissioning (RCx) pilot program to improve central plant operations. RCx is a process that identifies individual energy efficiency measures to improve the control of the system to reduce energy use.

At a future time the College may consider an MBCx program for buildings. MBCx is a process that optimizes building performance for comfort and energy use through the use of permanent whole-building metering and energy monitoring.

7.4 SUSTAINABLE BUILDING PRACTICES

Construction and renovation of new and existing facilities provides a significant opportunity to reduce the environmental impacts of the built environment through sustainable building practices. Citrus College incorporates energy and resource efficient “Green Building” practices in the design and construction of all new and renovated facilities.

7.4.2.1 ESTABLISH A GREEN BUILDING STANDARD

Citrus College has established the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Silver “equivalent” rating as their building standard. All architect and engineering contracts incorporate this design standard requirement. The LEED rating system is an industry “Best Practice” and is commonly used in higher education and commercial building construction.

7.4.2.2 IMPLEMENT SUSTAINABLE DESIGN PRACTICES

All campus new construction, renovation, maintenance, and repair projects are designed with consideration of College sustainability goals and all applicable energy codes and regulations. Energy efficiency and sustainable design is addressed early in the project planning and design phases to maximize cost effectiveness. Citrus College takes full advantage of the SCE Savings by Design program, which provides technical expertise and incentives to incorporate sustainable design practices in all new construction and building renovation projects.

7.4.2.3 USE AN INTEGRATED SYSTEMS APPROACH IN BUILDING DESIGN

Sustainable building goals are evaluated in a cost effective manner by identifying economic and environmental performance criteria, evaluating life cycle savings, and adopting an integrated systems approach. Such an approach treats the entire building as one system and recognizes that individual building features, such as lighting, windows, heating and cooling systems, should be evaluated and designed as interactive systems. This integrated approach to sustainable design is a feature of the SCE Savings by Design "Whole Building" process employed at the College.

7.6 TRANSPORTATION, COMMUTING, AND CAMPUS FLEET & TRAVEL

Citrus College will strive to reduce Vehicle Miles Traveled (VMT) for students, faculty, and staff commuting to the campus in an effort to reduce greenhouse gas emissions and minimize the infrastructure costs related to parking. The following programs will be implemented.

7.6.2.1 UNDERSTAND COMMUTE AND TRAVEL PATTERNS

A first step for improving commute and travel patterns at Citrus College will be to get a better understanding of how students, faculty, and staff get to the campus. This will be done through commuter surveys, which will be made quick and easy to fill out in order to maximize the number of responses received. In the past, faculty and staff surveys were attempted with limited success. A stepped up effort will be made in this area to include students. Incentives may be offered to improve participation.

7.6.2.2 ENCOURAGE AND ENHANCE PUBLIC TRANSPORTATION AND RIDESHARING OPTIONS

Public transportation is an important strategy to reduce VMT's and resulting greenhouse gases. The Los Angeles Metropolitan Transit Agency (MTA) is planning a Gold Line Light Rail stop adjacent to the College with its planned extension in 2015. Citrus College has been in discussion with the MTA about this project, and the College has purchased the property across the street from the campus where the station will be located. This station will greatly enhance public transportation options for students, faculty, and staff commuting to the College. For more information on this light rail extension go to: www.foothillextension.org.

Citrus College will also evaluate programs offered by the MTA to encourage bus ridership to the campus in the near term.

7.6.2.3 ENCOURAGE AND ENHANCE BICYCLING OPTIONS

The College will work to improve bicycle commuting options at the campus as well as bicycle circulation throughout campus. Plans will be developed to provide secure storage for bikes and additional bike racks on campus. Outreach and education to help commuters overcome obstacles related to bicycling will be implemented, for example, to encourage commuters to utilize existing shower facilities and changing rooms for those who bike to campus.

7.6.2.5 ENHANCE STUDENT DISTANCE LEARNING

Citrus College will explore additional distance learning classes via the internet, which cuts down travel to and from campus and will explore increasing accessibility of courses to more student demographics. Faculty members of the Sustainability Committee will evaluate opportunities for Distance Learning and bring them back to the full committee for discussion.

7.7 WATER, WASTEWATER, AND SUSTAINABLE LANDSCAPING

Water conservation is an important component of sustainability and is aggressively pursued by Citrus College. The college strives to reduce potable water use as well as waste water discharges to both the sewer and storm water systems. In addition, the college reduces waste water pollution by minimizing chemical fertilizers and pesticide use in association with landscaping practices.

7.7.2.2 IMPLEMENT WATER CONSERVATION STRATEGIES

The College has made water conservation a priority for environmental purposes as well as to avoid penalties for excessive water use from the local water and wastewater utilities. Citrus College has installed artificial turf on football fields, softball fields and the driving range. In addition to eliminating the need for irrigation, the need for air polluting lawn mowers, chemical pesticides and fertilizers, and maintenance labor have been reduced.

7.7.2.3 REDUCE STORM WATER, SEWER DISCHARGES, AND WATER POLLUTION

Storm water discharges are a prime source of pollutants entering the environment and place the college at risk for fines or other regulatory penalties. The artificial turf installed at Citrus College provides storm water retention features that allow run-off to percolate into the ground. In addition, the college has constructed subsurface retention basins under the parking lots to reduce storm drain discharges and utilizes sand bags when needed to reduce storm water pollution.

7.7.2.4 ADOPT SUSTAINABLE LANDSCAPING PRACTICES

Sustainable landscaping practices not only conserve water, but can contribute to achieving many other goals for sustainability. All new and replanted landscaping on campus is required to be water conserving and drought tolerant.

7.8 SOLID WASTE REDUCTION AND MANAGEMENT

Citrus College already has a very successful recycling program that reduces greenhouse gas emissions and landfill deposits. The measures identified in the Sustainability Plan are intended to improve this program and expand efforts into source-separated recycling and green waste/food waste composting. If designed effectively, minimizing solid waste can save the college money and create revenue streams that can be reinvested in the campus. The college will employ the principles of Reduce, Reuse, and Recycle in its solid waste reduction program.

7.8.2.1 CREATE WASTE REDUCTION GOALS

The college will develop goals to reduce the waste stream and increase the waste diversion of readily recyclable and compostable materials. Citrus College currently diverts roughly 50 percent of its waste stream from the landfill and would like to increase this diversion rate by employing additional waste reduction strategies. The Sustainability Committee has adopted the following diversion goal for this Plan: *Continue to implement the recycling program, expand it to include all sectors of recycling and waste reduction to landfills, comply with recycling program requirements of AB-341, and strive to meet the statewide landfill diversion goal of 75 percent by 2020.* This will require the college to regularly measure the amount and type of waste being land filled, recycled and composted.

7.8.2.2 MAXIMIZE PROGRAMS OFFERED BY CONTRACTED WASTE HAULER

Citrus College will maximize programs offered by its contracted waste hauler. These may include recycling programs, and green waste (such as yard trimmings) or food waste composting. The college already performs construction and demolition (C&D) recycling. Since there may be variations in programs offered by different haulers, Citrus College will evaluate the services offered by all available haulers to best meet the sustainability goals of the campus and contract with a hauler that provides the desired services at favorable economics. It may be necessary for the College to employ multiple waste haulers in order to receive all of the different desired services.

7.8.2.4 IMPROVE EXISTING RECYCLING PROGRAMS

As stated above, Citrus College has a very successful recycling program in place resulting in an approximately 50 percent diversion rate. The current program is based on sorting of recyclables at the central Materials Recycling Facility (MRF) on campus. This rate could be increased by implementing a “source-separated” program by providing separate bins around campus to facilitate source separation of paper, plastic, bottles, cans, and hazardous waste like batteries to improve diversion rates and proper disposal. A source-separated program will

be evaluated for implementation by the Sustainability Committee.

7.8.2.6 GREEN WASTE AND FOOD WASTE COMPOSING

Citrus College can further reduce its waste stream by implementing green waste and food waste composting. This can be done through on-site composting or by using services provided by a local waste hauler. The Sustainability Committee will explore alternatives for both on-site composting, potentially managed by students, or third party services through a waste hauler.

7.9 GREEN PURCHASING

Citrus College has adopted purchasing policies to meet the goals of environmental, economic, and social sustainability and to use its market power to influence suppliers to be more sustainable, as described below.

7.9.2.2 GREEN PURCHASING PRACTICES

Citrus College strives to purchase materials and equipment that is recyclable, packaged in recycled materials, and is sustainable. Standards have been established for the purchasing of cleaning materials and other chemicals on campus, and custodians use biodegradable cleaning materials and reduce the use of chemicals that may be harmful to the environment and the health of those who are exposed to those chemicals.

7.10 STUDENT AND CURRICULUM DEVELOPMENT

The mission of Citrus College is to deliver high quality instruction to students both within and beyond traditional geographical boundaries and to provide an open and welcoming culture that supports student completion and success. With the economics of environmental sustainability becoming increasingly important in all facets of society, the College has a responsibility to play a role in moving current and future generations toward a sustainable future.

By demonstrating social responsibility, sustainable development strategies and carbon management through the implementation of the Sustainability Plan, and encouraging the inclusion of sustainability content in courses, the college can play a key role in realizing the goals of this plan. Use of the campus wide sustainable infrastructure as a pedagogical tool, amplification of holistic or systems thinking, and integration of sustainability into coursework when relevant will advance the academic community toward desired educational outcomes for sustainable development.

Citrus College will strive to create learning opportunities for student involvement and encourage active sharing of current and evolving content to support implementation of the plan. Through the Sustainability Plan initiatives, faculty, staff, administrators, and students will have opportunities to collaborate, participate and serve as effective agents for positive change.

7.10.2.3 UTILIZE DIFFERENT PATHWAYS TO INTEGRATE SUSTAINABILITY INTO THE CURRICULUM

The Sustainability Plan will influence the inclusion of sustainable topics in many campus venues. It is anticipated that the dialogue within and across instructional programs will result in the exploration and implementation of a variety of approaches, i.e., use of supplemental materials, assignments, work experience, service learning or, in some cases, curriculum integration. As actualization of sustainability content permeates the campus, it is anticipated that many new and innovative methods, not yet considered, will emerge. Some areas of study, such as economics, the sciences, sociology and career technical education may present clear links to sustainability, while others may have less obvious connections but would still benefit from the inclusion of sustainability, such as ethics and political science. It is believed that examples of sustainability and ecology in literature and mathematics can enrich the respective courses, and assignments or projects in a course can have a sustainability theme to add another dimension. Citrus College science faculty are exploring the use of this approach to incorporate sustainability practices in their curriculum design. As they realize success, their outcomes will be shared to encourage broader participation of colleagues as they explore approaches customized to their discipline.

7.10.2.5 TRAINING OPPORTUNITIES FOR STUDENTS

Students can enhance classroom learning with hands-on experience by applying what they have learned to the real world. Citrus College is currently one of three community colleges participating in the Southern California Edison Developing Energy Efficiency Professionals (DEEP) student internship program. DEEP is an employment development program that trains and educates California Community College students in the areas of energy efficiency and demand side reduction through classroom learning, projects, and outreach within the campus community. Along with preparing students for green careers, the program will produce reductions in operational costs for the college by promoting the understanding of electricity demand response, resource conservation, and carbon emission reduction. There were four DEEP interns at Citrus College for the 2011-2012 academic year, and all four participated in the development of the Citrus College Sustainability Plan.

7.11 CAMPUS AND COMMUNITY OUTREACH & AWARENESS

The sustainability of a college is highly dependent on the actions of individual students, faculty, and staff. While having energy efficient equipment, installing low flow water devices, and providing separate bins for source separation of waste can make a District more sustainable, behavioral changes can have a large impact on the effectiveness of these projects. Additionally, it is important to maintain transparency and keep the campus and local community informed of the District's progress with sustainability plan implementation. This is hard work and contributions to the District's sustainability should be recognized. Citrus College will implement the following programs related to campus and community outreach and awareness.

7.11.2.1 CREATE A WEBSITE DEDICATED TO CAMPUS SUSTAINABILITY

Citrus College will create a page on the college website dedicated to spreading information about sustainability practices and the implementation of the Sustainability Plan. The website will serve as a publicity tool for sustainability events and student groups and as a coordination tool for conveying information to the local community about sustainability programs. This will be managed by student members of the Sustainability Committee with college administration oversight and will be kept up to date with the latest campus developments and links to any public reports about campus sustainability efforts.

7.11.2.2 HOLD WORKSHOPS AND PRESENTATIONS

The Sustainability Committee will hold open workshops or presentations to allow members of the campus and community to stay informed about sustainability activities, ask questions, and participate in decisions. Workshops and presentations will be well publicized and open to all, and they will be led by individuals who can knowledgably field questions from the audience and efficiently facilitate the workshop process. The model for the workshops will be the successful Campus Sustainability Forum held on April 24, 2012.

SECTION 5.**MEASURE AND REPORT PERFORMANCE**

As with any successful program, the ongoing progress and performance of sustainability plan activities will be *monitored and compared to goals and criteria*. This will require continuous participation of the Sustainability Committee, and other participants in the process. To communicate results and ensure transparency and accountability, the *results of the Sustainability Plan activities will be communicated to the larger campus community on a regular basis*.

The following section describes the process for measuring and reporting sustainability activities and achievements.

5.1 MEASURING PERFORMANCE

In order to monitor Citrus College's progress towards its sustainability goals, the Campus Sustainability Committee plans to collect information on the following key metrics at regular intervals as described below. Metrics for progress measurement will be tied to the criteria defined for each goal established in Section 3 of the Sustainability Plan.

Goal Number	Area of Sustainability	Performance Metric	Measurement Frequency
1	Economic Return on Investment	Evaluate the return on investment of capital improvements in sustainability based on life-cycle Net Present Value (NPV). For each proposed capital improvement project, the college will perform a Net Present Value calculation that accounts for initial costs, any financing costs, cost savings, appropriate discount rate, and effective life of improvement. Projects with a positive NPV will be given priority for implementation.	With each proposed Capital Improvement Project
2	Energy Efficiency	Reduce overall campus energy consumption by 6 percent within two years. Monitor total annual electricity and natural gas at the college master meters. Establish a baseline from 2012 usage. Establish new reduction goals after two years based on planned activities and additional opportunities.	Establish baseline with 2012 usage. Monitor annually.

Goal Number	Area of Sustainability	Performance Metric	Measurement Frequency
3	The Built Environment	Construct all major capital projects to meet LEED Silver “equivalent” standard, with goals to reduce energy and water use, wastewater discharges, and sustainable landscaping practices. Require this standard with all design and construction contracts. Require project architect to complete LEED checklist that demonstrates Silver rating and to verify that selected measures are implemented. This requirement does not mandate registration or project certification by the USGBC or LEED, but uses that process as an “equivalent” self-certification of projects.	With each major Capital Improvement Project
4	Technology Utilization	Continue to take advantage of new technologies in all areas of waste reduction, energy usage and sustainable culture. The Citrus College Sustainability Committee will review new technology options for campus construction projects, operations and maintenance as it relates to sustainability. The staff will enlist assistance for this effort from SCE and SCG and the CCC/IOU Energy Efficiency Partnership.	Initial evaluation in 2013. Review annually.
5	Leadership and Champions	Identify campus community members who will be enthusiastic, involved, reasonable, and responsible to lead the campus in its sustainability efforts and to set the example for generations to come. This will be accomplished by establishing the Citrus College Sustainability Committee as a permanent sub-committee of the Physical Resources Committee and by actively recruiting interested and motivated students, faculty, and staff into its membership.	Ongoing
6	Solid Waste Management	Continue to improve the recycling program, expand it to include all sectors of recycling and waste reduction to landfills, comply with recycling program requirements of AB-341, and strive to meet the statewide landfill diversion goal of 75 percent by 2020. Establish 2012 as a baseline year for diversion measurement, and monitor annually to achieve goal by 2020.	Baseline measurement at end of 2012. Monitor annually until 2020.

Goal Number	Area of Sustainability	Performance Metric	Measurement Frequency
7	Transportation	Reduce the reliance of students, faculty and staff on single occupancy vehicle commutes by 5 percent within the next five years. Encourage the utilization of public bus and rail transportation, car pooling, and bicycling to campus. Conduct annual surveys to determine total Vehicle Miles Traveled reduced/single occupancy vehicles reduced.	Baseline measurement at end of 2012. Monitor annually for five years.
8	Communication and Education	Develop and implement a program to raise awareness in the campus community to inspire behavioral changes to enhance sustainability.	Program initiation by Fall Semester 2013.
9	Campus and Community Involvement	Increase community awareness and support of the College sustainability efforts through the use of targeted media.	Program initiation by Fall Semester 2013.
10	Curriculum	Develop an Implementation Plan to achieve Curriculum Goals as described in Section 3 by the Fall Semester of 2013.	Implementation Plan developed by Fall Semester 2013.
11	Continuous Improvement	Citrus College will improve existing sustainability efforts by analyzing and auditing current activities to identify changes to processes and to increase effectiveness and to develop future goals. Analysis of energy and water usage and solid waste management programs will be completed by January 2014.	Continuous improvement analysis to be complete by January 2014.
12	Greenhouse Gas Reduction	Continue to reduce Greenhouse Gas emissions through the implementation of the Citrus College Sustainability Plan. Consider a future Climate Action Planning process to meet AB-32 requirements.	Consider the implementation of a Climate Action Plan to meet AB-32 within five years of Sustainability Plan adoption.

5.2 REPORTING PERFORMANCE

In order to keep the campus community informed of the progress of the Sustainability Plan activities, the Campus Sustainability Committee will create a webpage dedicated to sustainability on the Citrus College website. The Sustainability website will be developed by the Committee and maintained by the Office of the Vice President of Finance and Administrative Services.

The Campus Sustainability Committee will continue to meet bi-monthly to review progress with Plan implementation and to discuss changes or new initiatives.

5.2.1 CAMPUS WORKSHOPS

The Campus Sustainability Committee will hold periodic workshops open to all campus members throughout the implementation phases of the Plan. This will be designed to encourage a two-way dialogue where information is provided to the campus community and feedback is solicited and incorporated into the plan. These workshops will be patterned after the Sustainability Forum held on campus in April 2012.

SECTION 6.
APPENDICES

APPENDIX 1: CITRUS COLLEGE SUSTAINABILITY COMMITTEE

APPENDIX 2: IMPLEMENTATION PROGRAMS AND PLANS CHECKLIST

APPENDIX 1

CITRUS COLLEGE SUSTAINABILITY COMMITTEE

Robert Bradshaw, Chair – Citrus College Construction Program Manager
Carol Horton – Vice President of Finance and Administrative Services
Robert Iverson – Director of Purchasing and Warehouse
Jeff Eichler – Environmental Health and Safety Program Supervisor
Eric Rabitoy – Dean of Physical and Natural Sciences
Robert Goodman, Christine Goedhart – Faculty
Fred Diamond – Director of Facilities and Construction
Martha McDonald - Dean of Students
Jody Wise - Dean of Kinesiology, Health & Athletics
Marti DeYoung - Career Technical Education Programs Supervisor
Lori Amato - Administrative Secretary II
Leigh Buchwald - Network & Telecommunications Systems Supervisor
Paula Green - Director of Communications
Adrienne Thompson - Student Life and Leadership Development Supervisor
Brandon Han, Luke Vogel, Kyle Marcano, Charity Muraya Karungari – DEEP Interns
Deeptika Patel – DEEP Program Manager
Art Corral, Andrea Zapata – Student Volunteer Corps
Brandon Mac Donald, Norma Saldana – At-Large Students
Lisa Hannaman – Southern California Edison
Dan Estrada – CCC Chancellor's Office
Matt Sullivan, PE – Newcomb Anderson McCormick
Steven Clarke – Newcomb Anderson McCormick
Ann McCormick, PE – Newcomb Anderson McCormick

APPENDIX 2

IMPLEMENTATION PROGRAMS AND PLANS CHECKLIST

The completed Implementation Programs and Planning Checklist is attached. The checklist reflects the Programs and Projects identified in Section 4 of the Sustainability Plan. For each selected program or project, the priority, current status, associated plan goal, target completion date, and responsibility assignments is indicated on the Checklist Summary Report. The estimated cost for each program or project is to be determined based on additional work by the Sustainability Committee.

The Implementation Programs and Plans Checklist will be used by the Citrus College Sustainability Committee to manage the implementation of the Sustainability Plan.

**Sustainability Template Plan Summary
Implementation Programs and Checklist**

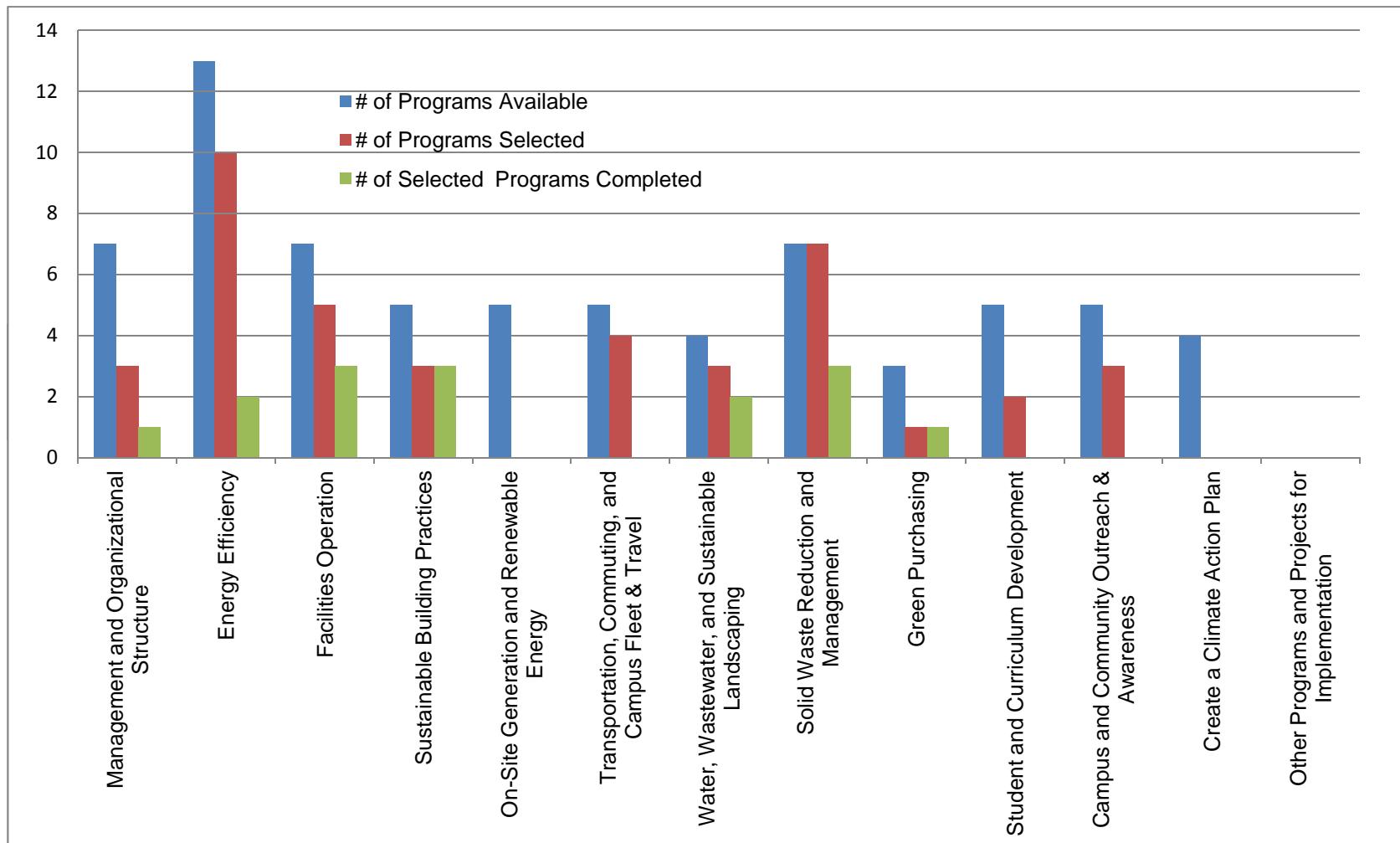
District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
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Plan Section	Template Plan Section Description	# of Programs Available	# of Programs Selected	# of Selected Programs Completed
<u>7.1</u>	Management and Organizational Structure	7	3	1
<u>7.2</u>	Energy Efficiency	13	10	2
<u>7.3</u>	Facilities Operation	7	5	3
<u>7.4</u>	Sustainable Building Practices	5	3	3
<u>7.5</u>	On-Site Generation and Renewable Energy	5	0	0
<u>7.6</u>	Transportation, Commuting, and Campus Fleet & Travel	5	4	0
<u>7.7</u>	Water, Wastewater, and Sustainable Landscaping	4	3	2
<u>7.8</u>	Solid Waste Reduction and Management	7	7	3
<u>7.9</u>	Green Purchasing	3	1	1
<u>7.10</u>	Student and Curriculum Development	5	2	0
<u>7.11</u>	Campus and Community Outreach & Awareness	5	3	0
<u>7.12</u>	Create a Climate Action Plan	4	0	0
<u>7.13</u>	Other Programs and Projects for Implementation	0	0	0
Totals		70	41	15

Sustainability Template Programs Chart

District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
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Sustainability Template Plan
Implementation Programs and Plans Checklist

District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below			
Section 7.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE		Comments	
<input type="checkbox"/>	7.1.2.1	Adopt a District Sustainability Policy	
<input type="checkbox"/>	7.1.2.2	Appoint a Sustainability Coordinator, Establish an Office of Sustainability	
<input type="checkbox"/>	7.1.2.3	Appoint a Campus Sustainability Committee	Appointed with 3/2/12 Pilot Demonstration Kick-off. Bob Bradshaw, Chair.
<input type="checkbox"/>	7.1.2.4	Funding and Resources to Support Sustainability Activities	
<input type="checkbox"/>	7.1.2.5	Employ Sustainability Professionals, as required	
<input type="checkbox"/>	7.1.2.6	Consider Sustainability in Endowment Investments	
<input type="checkbox"/>	7.1.2.7	Integrate Sustainability Planning into Campus Master Plan	By means of Energy Conservation Master Plan
<input type="checkbox"/>	7.1.3.1	<i>Enter Other Program and Project 1, text will change color</i>	
<input type="checkbox"/>	7.1.3.2	<i>Enter Other Program and Project 2, text will change color</i>	

See Sustainability Template Plan Section 7.1 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

District: Citrus CCD
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Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.2 ENERGY EFFICIENCY		Comments
<input checked="" type="checkbox"/>	7.2.2.1	Set Energy Efficiency Goals
<input checked="" type="checkbox"/>	7.2.2.2	Evaluate Mechanisms for the Implementation of Energy Efficiency Projects
<input checked="" type="checkbox"/>	7.2.2.3	Conduct Facility Prioritization Survey
<input checked="" type="checkbox"/>	7.2.2.4	Conduct Comprehensive Facility Energy Audits
<input checked="" type="checkbox"/>	7.2.2.5	Implement New and Existing Audit Recommendations
<input type="checkbox"/>	7.2.2.6	Implement Ongoing Energy Monitoring
<input type="checkbox"/>	7.2.2.7	Participate in Demand Response Programs
<input checked="" type="checkbox"/>	7.2.2.8	Identify and Take Advantage of Grant and Incentive Programs
		CCC/IOU EE Partnership CEC Grant for Sustainability Template
<input type="checkbox"/>	7.2.2.9.1	Establish a Purchasing Policy
<input checked="" type="checkbox"/>	7.2.2.9.2	Efficient Lighting and Lighting Controls
<input checked="" type="checkbox"/>	7.2.2.9.3	Install Energy Efficient HVAC Systems
<input type="checkbox"/>	7.2.3.1	Construct Chilled Water Central Plant
<input checked="" type="checkbox"/>	7.2.3.2	Cool Roofing
		Central Plant provides more energy efficient HVAC operations and reducing peak electricity demand
		Some buildings already have cool roofing installed. Evaluation underway for additional buildings.

See Sustainability Template Plan Section 7.2 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

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Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.3 FACILITIES OPERATION		Comments
<input checked="" type="checkbox"/>	7.3.2.1 Encourage and Support Energy Efficiency Training of Staff	NEW
<input checked="" type="checkbox"/>	7.3.2.2 Install Energy Management Systems	Campus HVAC systems controlled by EMS. Evaluate expanding to lighting and other controls.
<input type="checkbox"/>	7.3.2.3 Adjust Temperature Set Points and Schedule Operating Times	
<input type="checkbox"/>	7.3.2.4 Optimize Building Occupancy Scheduling	
<input checked="" type="checkbox"/>	7.3.2.5 Optimize HVAC Equipment Scheduling	Existing
<input checked="" type="checkbox"/>	7.3.2.6 Activate Energy-Saving Features for Appliances and Computers	Existing. Get more info from IT
<input checked="" type="checkbox"/>	7.3.2.7 Pursue Monitoring-Based(MBCx)/Retro-Commissioning (RCx)	Pilot RCx for Central Plant thorough CCC/IOU EE Partnership.
<input type="checkbox"/>	7.3.3.1 <i>Enter Other Program and Project 1, text will change color</i>	
<input type="checkbox"/>	7.3.3.2 <i>Enter Other Program and Project 2, text will change color</i>	

See Sustainability Template Plan Section 7.3 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

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Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.4 SUSTAINABLE BUILDING PRACTICES		Comments
<input checked="" type="checkbox"/>	7.4.2.1	Establish a Green Building Standard LEED Silver equivalent
<input checked="" type="checkbox"/>	7.4.2.2	Implement Sustainable Design Practices SCE Savings by Design program employed on all new construction/renovation projects.
<input checked="" type="checkbox"/>	7.4.2.3	Use an Integrated Systems Approach in Building Design Through Savings by Design.
<input type="checkbox"/>	7.4.2.4	Hire Sustainable Building Design Professionals
<input type="checkbox"/>	7.4.2.5	Commission New Buildings
<input type="checkbox"/>	7.4.3.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.4.3.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.4 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

District: Citrus CCD
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Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.5 ON-SITE GENERATION AND RENEWABLE ENERGY		Comments
<input type="checkbox"/> 7.5.2.1	Evaluate Clean Cogeneration and Renewable Energy Generation	
<input type="checkbox"/> 7.5.2.2	Evaluate Load Shifting Technologies	
<input type="checkbox"/> 7.5.2.3	Minimize Greenhouse Gas Intensity of Purchased Electricity	
<input type="checkbox"/> 7.5.2.4	Evaluate Participation in Community Choice Aggregation	
<input type="checkbox"/> 7.5.2.5	Identify and Take Advantage of Grant and Incentive Programs	
<input type="checkbox"/> 7.5.3.1	<i>Enter Other Program and Project 1, text will change color</i>	
<input type="checkbox"/> 7.5.3.2	<i>Enter Other Program and Project 2, text will change color</i>	

See Sustainability Template Plan Section 7.5 for Details of Implementation Plans.



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**Sustainability Template Plan
Implementation Programs and Plans Checklist**

District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.6 TRANSPORTATION, COMMUTING, AND CAMPUS FLEET & TRAVEL		Comments
<input checked="" type="checkbox"/>	7.6.2.1	Understand Commute and Travel Patterns
		Some existing
<input checked="" type="checkbox"/>	7.6.2.2	Encourage and Enhance Public Transportation and Ridesharing Options
		Maximize use of future Gold Line light rail station adjacent to college. Examine other programs from MTA. Student led?
<input checked="" type="checkbox"/>	7.6.2.3	Encourage and Enhance Bicycling Options
		Bike racks?
<input type="checkbox"/>	7.6.2.4	Improve Campus Fleet & Travel
<input type="checkbox"/>	7.6.2.5	Enhance Student Distance Learning
		On line classes. Study. Draw in curriculum and faculty. Bobby
<input type="checkbox"/>	7.6.3.1	Enter Other Program and Project 1, text will change color
<input type="checkbox"/>	7.6.3.2	Enter Other Program and Project 2, text will change color

See Sustainability Template Plan Section 7.6 for Details of Implementation Plans.



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**Sustainability Template Plan
Implementation Programs and Plans Checklist**

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Campus: Citrus College
Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below			
Section 7.7 WATER, WASTEWATER, AND SUSTAINABLE LANDSCAPING		Comments	
<input type="checkbox"/>	7.7.2.1	Establish Water Conservation Goals	
<input checked="" type="checkbox"/>	7.7.2.2	Implement Water Conservation Strategies	Maxicom irrigation system, restroom modernization using water saving features, mulching lawnmowers, synthetic turf on sports fields.
<input checked="" type="checkbox"/>	7.7.2.3	Reduce Storm Water, Sewer Discharges, and Water Pollution	Synthetic fields, stormwater retention
<input checked="" type="checkbox"/>	7.7.2.4	Adopt Sustainable Landscaping Practices	IPM program, Eco-Friendly Gardens, Sustainable Landscaping Program.
<input type="checkbox"/>	7.7.3.1	<i>Enter Other Program and Project 1, text will change color</i>	
<input type="checkbox"/>	7.7.3.2	<i>Enter Other Program and Project 2, text will change color</i>	

See Sustainability Template Plan Section 7.7 for Details of Implementation Plans.



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**Sustainability Template Plan
Implementation Programs and Plans Checklist**

District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.8 SOLID WASTE REDUCTION AND MANAGEMENT		Comments
<input checked="" type="checkbox"/>	7.8.2.1	Create Waste Reduction Goals
		New. Jeff to write
<input checked="" type="checkbox"/>	7.8.2.2	Maximize Programs Offered by Contracted Waste Hauler
		New. Jeff to explore. Look at food waste
<input checked="" type="checkbox"/>	7.8.2.3	Reduce Waste Stream to the Landfill
		Campus recycling program
<input checked="" type="checkbox"/>	7.8.2.4	Improve Existing Recycling Programs
		New. Need to improve limited source seperated existing program. Bobby and Jeff.
<input checked="" type="checkbox"/>	7.8.2.5	Collect and Sell All Recyclable Material
		Currently sell electronic, furnature, metal, other material. Current recycling center activities.
<input checked="" type="checkbox"/>	7.8.2.6	Green Waste and Food Waste Composting
		New. Student run program tied to curriculum. Wildland resources and forestry. Bobby and Jeff.
<input type="checkbox"/>	7.8.2.7	Adopt Construction and Demolition (C&D) Recycling
		Existing.
<input type="checkbox"/>	7.8.3.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.8.3.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.8 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

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Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.9 GREEN PURCHASING		Comments
<input type="checkbox"/>	7.9.2.1	Sustainable Food Purchasing
<input checked="" type="checkbox"/>	7.9.2.2	Green Purchasing Practices Custodial services green purchasing program includes chemicals, eco-friendly paper, and cleaning equipment.
<input type="checkbox"/>	7.9.2.3	Socially Responsible Purchasing
<input type="checkbox"/>	7.9.3.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.9.3.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.9 for Details of Implementation Plans.



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Sustainability Template Plan
Implementation Programs and Plans Checklist

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Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.10 STUDENT AND CURRICULUM DEVELOPMENT		Comments
<input type="checkbox"/>	7.10.2.1	Create a Sub-Committee in the Academic Senate Devoted to Sustainability
<input type="checkbox"/>	7.10.2.2	Provide Professional Development and Create a Faculty Forum
<input checked="" type="checkbox"/>	7.10.2.3	Utilize Different Pathways to Integrate Sustainability Existing. Expand in the Curriculum
<input type="checkbox"/>	7.10.2.4	Advocate for Change at the Statewide Level
<input checked="" type="checkbox"/>	7.10.2.5	Training Opportunities for Students Participate in SCE DEEP Program. Expand
<input type="checkbox"/>	7.10.3.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.10.3.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.10 for Details of Implementation Plans.



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**Sustainability Template Plan
Implementation Programs and Plans Checklist**

District: Citrus CCD
Campus: Citrus College
Project: Programs & Plans Checklist v3
Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.11 CAMPUS AND COMMUNITY OUTREACH & AWARENESS		Comments
<input checked="" type="checkbox"/>	7.11.2.1	Create a Website Dedicated to Campus Sustainability NEW
<input checked="" type="checkbox"/>	7.11.2.2	Hold Workshops and Presentations First campus-wide Sustainability Presentation at 4/24/12 Earth Day Event. Other to follow.
<input type="checkbox"/>	7.11.2.3	Sustainability Events
<input checked="" type="checkbox"/>	7.11.2.4	Campus Specific Outreach & Awareness NEW Through Campus Sustainability Committee.
<input type="checkbox"/>	7.11.2.5	Community Specific Outreach & Awareness
<input type="checkbox"/>	7.11.3.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.11.3.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.11 for Details of Implementation Plans.



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**Sustainability Template Plan
Implementation Programs and Plans Checklist**

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Date: 6/21/2012

Priority Implementation Plans Indicated Below

Selected Programs and Plans for Implementation are Summarized Below		
Section 7.12 CREATE A CLIMATE ACTION PLAN		Comments
<input type="checkbox"/>	7.12.5	Make a Commitment to Reduce Greenhouse gas Emissions
<input type="checkbox"/>	7.12.6	Perform a Campus Greenhouse Gas Inventory
<input type="checkbox"/>	7.12.7	Create and Execute a Climate Action Plan with Prioritized Greenhouse Gas Reduction Measures
<input type="checkbox"/>	7.12.8	Regularly Monitor and Report Progress to Campus
<input type="checkbox"/>	7.12.9.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.12.9.2	<i>Enter Other Program and Project 2, text will change color</i>

See Sustainability Template Plan Section 7.12 for Details of Implementation Plans



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Selected Programs and Plans for Implementation are Summarized Below

Section 7.13 OTHER PROGRAMS AND PROJECTS FOR IMPLEMENTATION		Comments
<input type="checkbox"/>	7.13.1	<i>Enter Other Program and Project 1, text will change color</i>
<input type="checkbox"/>	7.13.2	<i>Enter Other Program and Project 2, text will change color</i>
<input type="checkbox"/>	7.13.3	<i>Enter Other Program and Project 3, text will change color</i>
<input type="checkbox"/>	7.13.4	<i>Enter Other Program and Project 4, text will change color</i>

See Sustainability Template Plan Section 7.13 for Details of Implementation Plans.



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Section 7.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.1.2.3	Appoint a Campus Sustainability Committee		High	Complete		5		
7.1.2.5	Employ Sustainability Professionals, as required		Low	In-Process		5	Ongoing	V.P. Finance & Administrative Services
7.1.2.7	Integrate Sustainability Planning into Campus Master Plan		High	In-Process		1,3,11	Short Term	V.P. Finance & Administrative Services
Section 7.2 ENERGY EFFICIENCY								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.2.2.1	Set Energy Efficiency Goals		High	Planned		2	Short Term	Director of Facilities & Construction
7.2.2.2	Evaluate Mechanisms for the Implementation of Energy Efficiency Projects		High	In-Process		2	Short Term	Director of Facilities & Construction
7.2.2.3	Conduct Facility Prioritization Survey		High	In-Process		2	Short Term	Director of Facilities & Construction
7.2.2.4	Conduct Comprehensive Facility Energy Audits		High	In-Process		2	Short Term	Director of Facilities & Construction
7.2.2.5	Implement New and Existing Audit Recommendations		Med	In-Process		2	Medium to Long Term	Director of Facilities & Construction
7.2.2.8	Identify and Take Advantage of Grant and Incentive Programs		High	In-Process		2	Ongoing	Director of Facilities & Construction
7.2.2.9.2	Efficient Lighting and Lighting Controls		High	In-Process		2	Short Term	Director of Facilities & Construction
7.2.2.9.3	Install Energy Efficient HVAC Systems			Complete		2		
7.2.3.1	Construct Chilled Water Central Plant			Complete		2		
7.2.3.2	Cool Roofing							

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Section 7.3 FACILITIES OPERATION								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.3.2.1	Encourage and Support Energy Efficiency Training of Staff		Med	Planned		5, 8,11	Medium Term	Director of Facilities & Construction
7.3.2.2	Install Energy Management Systems	Consider expansion	Med	Complete		2,3,4	Long Term	
7.3.2.5	Optimize HVAC Equipment Scheduling			Complete		2,3		
7.3.2.6	Activate Energy-Saving Features for Appliances and Computers	Get more info from IT		Complete		2,4		
7.3.2.7	Pursue Monitoring-Based(MBCx)/Retro-Commissioning (RCx)	SCE RCx Pilot	High	Planned		2,4,11	Short Term	Director of Facilities & Construction

Section 7.4 SUSTAINABLE BUILDING PRACTICES								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.4.2.1	Establish a Green Building Standard	LEED Silver Equivalent		Complete		3		
7.4.2.2	Implement Sustainable Design Practices	SCE Savings by Design		Complete		3		
7.4.2.3	Use an Integrated Systems Approach in Building Design	SCE Savings by Design		Complete		3		

Section 7.5 ON SITE GENERATION AND RENEWABLE ENERGY								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To

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Section 7.6 TRANSPORTATION, COMMUTING, AND CAMPUS FLEET & TRAVEL								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.6.2.1	Understand Commute and Travel Patterns	Student, Faculty, Staff Surveys	Med	Planned		7		V.P. Finance & Administrative Services and Student Affairs
7.6.2.2	Encourage and Enhance Public Transportation and Ridesharing Options	Maximize use of future Gold Line light rail station adjacent to college. Examine other programs from MTA. Student led?	High	Planned		7	Medium to Long Term	V.P. Finance & Administrative Services
7.6.2.3	Encourage and Enhance Bicycling Options	Install bike racks	Med	Planned		7	Medium Term	Director of Facilities & Construction
7.6.2.5	Enhance Student Distance Learning	Led by Faculty	Med	Planned		7,10	Medium Term	Academic Affairs

Section 7.7 WATER, WASTEWATER, AND SUSTAINABLE LANDSCAPING								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.7.2.2	Implement Water Conservation Strategies			Complete		3		
7.7.2.3	Reduce Storm Water, Sewer Discharges, and Water Pollution			Complete		3		
7.7.2.4	Adopt Sustainable Landscaping Practices	Expand and enhance	Med	In-Process		3,6		Director of Facilities & Construction

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Section 7.8 SOLID WASTE REDUCTION AND MANAGEMENT								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.8.2.1	Create Waste Reduction Goals		High	Planned		6	Short Term	Environmental Health & Safety Supervisor
7.8.2.2	Maximize Programs Offered by Contracted Waste Hauler		High	Planned		6	Short Term	Environmental Health & Safety Supervisor and Director of Purchasing
7.8.2.3	Reduce Waste Stream to the Landfill	Existing recycling program		Complete		6		
7.8.2.4	Improve Existing Recycling Programs	Source-separated program	High	Planned		6		Environmental Health & Safety Supervisor
7.8.2.5	Collect and Sell All Recyclable Material			Complete		6		
7.8.2.6	Green Waste and Food Waste Composting	Student run program?	Med	Planned		6	Long Term	Environmental Health & Safety Supervisor
7.8.2.7	Adopt Construction and Demolition (C&D) Recycling			Complete		6		

Section 7.9 GREEN PURCHASING								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.9.2.2	Green Purchasing Practices	Custodial services green purchasing program includes chemicals, eco-friendly paper, and cleaning equipment.		Complete		3		

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Section 7.10 STUDENT AND CURRICULUM DEVELOPMENT								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.10.2.3	Utilize Different Pathways to Integrate Sustainability in	Expand and enhance	High	In-Process		10	Medium Term	Academic Affairs
7.10.2.5	Training Opportunities for Students	SCE DEEP Program	High	In-Process		10	Ongoing	SCE and Academic Affairs

Section 7.11 CAMPUS AND COMMUNITY OUTREACH & AWARENESS								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To
7.11.2.1	Create a Website Dedicated to Campus Sustainability		High	Planned		8,9	Medium Term	V.P. Finance & Administrative Services
7.11.2.2	Hold Workshops and Presentations	First campus-wide Sustainability Presentation at 4/24/12 Earth Day Event. Other to follow.	High	In-Process		8,9	Short Term	Sustainability Committee
7.11.2.4	Campus Specific Outreach & Awareness		High	Planned		8,9	Short Term	Sustainability Committee

Section 7.12 CREATE A CLIMATE ACTION PLAN								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To

Section 7.13 OTHER PROGRAMS AND PROJECTS FOR IMPLEMENTATION								
Section	Selected Program or Project	Action Items/Notes	Priority (select)	Status (select)	Cost (\$)	Associated GOAL(s)	Target Completion Date	Assigned To