



vision for a
sustainable
UF







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INTRODUCTION

Human beings are a part of an interconnected, living web of species and systems that

fit together in intricate and sometimes mysterious ways. There are limits to how much our human populations can grow and how much we can alter our surrounding environment, without causing changes that will reverberate throughout that web.

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The shift to sustainability requires us to consider the limits to growth and the consequences of our personal and institutional impacts on the systems that support life. Rather than encouraging dichotomies like “humans versus nature” or “jobs versus the environment,” we can encourage integrated decision making that supports the long-term wellbeing of our society, including a healthy and sustainable economy.

The University of Florida has an obligation to meet the challenges of sustainability, integrating the goals of ecological restoration, economic development, and social equity into its operations, education, research, and outreach. As an institution of higher learning, we play a leading role in training the scientific, social, political and cultural leaders who

will make a difference in the world. Whether the world is a better or worse place for future generations is in no small part a function of the knowledge and skills we impart to our students and the values they develop in their years here.

To achieve the goal of a sustainable UF, we are committed to encouraging and facilitating the collaborative efforts of faculty, students, and staff to generate knowledge, acquire skills, develop values, and initiate practices that contribute to a

sustainable, high quality of life on campus, in the state of Florida, and across the globe.

In keeping with this commitment, the UF Office of Sustainability brought together representatives of diverse stakeholder groups across our campus to develop a collaborative vision for campus sustainability. Each group of representatives focused on a different topic area, all of which are represented individually and collectively in the sections of this report.



MISSION AND GUIDING PRINCIPLES

The mission of the Office of Sustainability is to make the University of Florida - in its operations, education, research, and outreach - a model of sustainability, integrating the goals of ecological restoration, economic development, and social equity.

In pursuing this mandate, the Office of Sustainability encourages and facilitates the collaborative efforts of faculty, students, and staff to generate knowledge, acquire skills, develop values, and initiate practices that contribute to a sustainable, high quality of life on campus, in the state of Florida, and across the globe.

The Office of Sustainability supports faculty, students, and staff in assuming leadership to transform the university's practices, following these guiding principles.

Teaching and Research — Stimulate and facilitate curricular development and research efforts in sustainability-related areas, including the promotion of service-learning and the empowerment of faculty, students, and staff to engage the campus community, university operations, and university lands as living laboratories for sustainability.

Service, Outreach, and Extension — Facilitate the civic engagement of faculty, students, and staff and stimulate service, outreach, and extension efforts that promote sustainable practices within community and economic development.

Energy Conservation and Climate Change — Monitor and minimize energy consumption, reduce and offset greenhouse gas emissions, and promote the development and use of renewable energy sources.

Land and Resource Management — Manage lands in a sustainable manner to conserve, protect, and restore natural systems, natural resources, and biodiversity.

Agriculture — Promote diverse and sustainable agricultural practices that encourage the protection of farmland and the rural environment, establish food security, and support a high standard of nutrition on campus and in the community.

Built Environment — Construct and renovate the built environment to high standards of energy, water, and materials efficiency with minimum impacts on local ecosystems.

Waste Reduction — Reduce waste streams and promote closed-cycle materials practices.

Procurement — Subscribe to procurement policies and practices that support environmentally and socially responsible products and services.

Investment — Explore and develop opportunities to engage in socially and environmentally responsible investing.

Transportation — Develop incentives and infrastructure for walking, cycling, ridesharing, and public transportation.

Health & Wellbeing — Ensure a healthy working environment for faculty, students, and staff and work to ensure equitable access to healthcare on campus and within the broader community.

Equity — Promote diversity among faculty, students, and staff. Establish policies that support living wages and fair remuneration. Facilitate a shared governance model for management of university operations and the sharing of perspectives and best practices.

Cultural Climate — Foster a cultural climate that supports a full range of creative expression, artistic experience, and recreational opportunity.

Stewardship — Encourage all members of the Gator Nation to take responsibility for the interdependent environmental, economic, and social consequences of their actions.

HISTORY

The current phase of the greening of the University of Florida began in 1994 when President Lombardi signed the Talloires Declaration, pledging to make environmental education and research a central goal in this institution.

After more than a decade of student, faculty, and administrative commitment to sustainability on campus, The University of Florida (UF) inaugurated its first fully funded Office of Sustainability on February 1, 2006. The university's ad hoc sustainability task force officially evolved into a joint standing committee of the faculty senate on August 15, 2006. The president of the university created and funded the office following resolutions from both the faculty and student senates.

Milestones that helped pave the way for the current sustainability effort at UF include:

- **1994:** UF joined 310 universities world-wide in signing the Talloires Declaration, pledging support to reduce environmental degradation and natural resource depletion.
- **OCTOBER 1997:** The Greening UF program was initiated as a grassroots movement of students, faculty and staff from across the campus for environmental stewardship.
- **SEPTEMBER 2000:** An Office of Sustainability was established within the College of Design, Construction and Planning (DCP) to facilitate, among other things, sustainability initiatives on campus.
- **2001:** UF adopted Leadership in Energy and Environmental Design (LEED) criteria for design and construction for all major new construction and renovation projects to deliver high performance and sustainable building design to the University of Florida.
- **MARCH 2001:** A Sustainability Task Force was created jointly by the President and Faculty Senate, following a Faculty Senate proposal of December 2000.
- **AUGUST 2001:** The DCP Office of Sustainability released a sustainability indicators report, based on the Global Reporting Initiative guidelines.
- **JULY 2002:** The Sustainability Task Force released its Final Report.
- **OCTOBER 2002:** The Faculty Senate endorsed the Task Force Final Report.
- **MARCH 2003:** In response to a request from President Young, the Task Force identified high priority recommendations from the Final Report for implementation.
- **APRIL 2004:** A Student Senate resolution (#1041) urged the creation of a university office of sustainability with "full administrative support."
- **SEPTEMBER 2004:** An ad hoc Sustainability Committee was established through appointments from the Faculty Senate and President Machen.
- **SEPTEMBER 2005:** UF opened the search for a director of a new Office of Sustainability to support cross-campus efforts.
- **OCTOBER 2005:** President Machen gave a speech on National Campus Sustainability Day setting goals for campus sustainability and pledging to deliver an annual report card on the university's efforts.
- **FEBRUARY 2006:** UF hired a director for the campus-wide Office of Sustainability.
- **JUNE 2006:** Provost Fouke commissioned a report on sustainability in the curriculum.
- **OCTOBER 2006:** UF hosted the first Florida Campus & Community Sustainability conference.
- **OCTOBER 2006:** President Machen was the first university president to commit to the American College and University Presidents Climate Commitment.
- **SEPTEMBER 2007:** UF embarked on a six-month collaborative visioning process for campus sustainability.
- **NOVEMBER 2007:** Provost Fouke appointed a Provost Faculty Fellow for Sustainability to develop, among other things, a Minor in Sustainability Studies.
- **JUNE 2008:** UF plans to publish the Sustainable UF - Envisioning Success and Empowering Action report.

After more than a decade of student, faculty, and administrative commitment to sustainability on campus, UF inaugurated its first fully funded Office of Sustainability.

METHODOLOGY

In 2006, the Association for the Advancement of Sustainability in Higher Education (AASHE) worked with schools in the Puget Sound region of Washington to develop the Sustainability in Higher Education Assessment Framework (SHEAF). SHEAF was intended to be a tool for assessing and benchmarking the sustainability performance of multiple institutions. AASHE's new Sustainability Tracking, Assessment, and Rating System (STARS) grew out of SHEAF. (See also What's Next)

UF facilitators used SHEAF as a guiding assessment framework during the visioning process. The SHEAF assessment indicators, which were sent to participants ahead of time as pre-work, aided participants in identifying strategies already underway at UF and in imagining the possibilities for campus sustainability.

SHEAF areas of assessment did not align perfectly with UF's pre-existing Guiding Principles for Sustainability, as adopted by the university's Joint Standing Sustainability Committee. As a consequence, the results of some sessions are combined and other principles, like Cultural Climate, are abbreviated. This does not, in any way, reflect a weighting of the importance among the principles.

Between September and December 2006, fourteen sessions were held, one for each indicator area, as identified above. In each facilitated four-hour session, participants:

- were guided through a high level overview of the case for sustainability
- had the opportunity to work in pairs, small groups, and with the whole group
- identified the most and least sustainable aspects of campus operations, generally (see below)
- crafted vision statements for the given topic, and
- identified what actions UF would need to put in place to realize some of the visions.

The sessions were facilitated by members of UF's Office of Human Resources — Training and Organizational Development team. We would like to extend our gratitude to the members of this team for their thoughtful and professional collaboration and facilitation.

Jodi Gentry

Bryan Garey

Bob Parks

Ruth Hernandez

Heather Adams

In keeping with this commitment, the UF Office of Sustainability brought together representatives of diverse stakeholder groups across our campus to develop a collaborative vision for campus sustainability.

Members of UF's Office of Sustainability attended every session; at least one member of UF's Joint Standing Sustainability Committee attended each session and served as a liaison back to the committee. Two Office of Sustainability interns attended every session and transcribed the notes that became the foundation for this report. We would like to thank interns Melissa DeSa and Andrea Garcia for their tireless work on this. Sustainability intern Stephanie Sims organized the information into the draft outline for the report, researched benchmark programs, and helped to draft many sections of the report.

INVITATIONS TO PARTICIPATE

In an effort to secure broad and inclusive stakeholder participation in the visioning process, representatives from the following departments, units, and business partnerships were invited to participate.

Academic Affairs
Agricultural and Biological Engineering
Americans with Disability Act Compliance Office
ARAMARK (national)
Botany
Business Affairs
Business Services Division
Buy Local Florida
Center for Leadership and Service
Center for Solid and Hazardous Waste Management
Chemical Engineering
Chemistry
College of Agricultural and Life Sciences
College of Dentistry
College of Education
College of Engineering
College of Fine Arts
College of Health and Human Performance
College of Journalism and Communications
College of Liberal Arts and Sciences
College of Medicine
College of Nursing
College of Pharmacy
College of Public Health and Health Professions
College of Veterinary Medicine
Community Relations
Compensation Committee
Computer and Networking Services

Department of Recreation Sports
Division of Small Business and Vendor
Diversity Relations
Division of Student Affairs
Electrical and Computer Engineering
Environmental Engineering Sciences
Entomology-Integrated Pest Management
Facilities Planning and Construction
Faculty Senate
Family, Youth, and Consumer Sciences
Finance and Accounting
Florida Institute for Sustainable Energy
Food and Resource Economics
Gainesville Harvest
Gator Dining Services
George A. Smathers Libraries
Graduate Assistants United
Hinkley Center for Solid/Hazardous Waste
Human Resource Services
Institute of Food and Agriculture Sciences
Industrial and Systems Engineering
International Carbon Bank and Exchange
Landscape Architecture
Levin College of Law
LGBT Concerns Committee
M.E. Rinker, Sr. School of Building Construction
Materials Science and Engineering
Multicultural and Diversity Affairs
Nuclear and Radiological Engineering
Office of Information Technology

Office of Sorority and Fraternity Affairs
Office of Technology Licensing
Office of the Provost
Office of the Registrar
Pepsi Bottling
Physical Plant Division
Physics
Professional Relations and Tenure Committee
Progress Energy
Reitz Union Administration
Samuel P. Harn Museum of Art
School of Forest Resources and Conservation
School of Natural Resources and Environment
Soil and Water Science
Stephen C. O'Connell Center
Student Government
Sustainability Committee
The Dean of Students Office
The Honors Program
Transportation and Parking Services
Tourism, Recreation, and Sports Management
Turf-grass Science
UF News Bureau
UF Office of Information Technology
University Athletic Association
University Relations
Veterinary Medical Center
Warrington College of Business Administration
Wildlife Ecology and Conservation
Zoology

CAMPUS PERCEPTIONS

During the fourteen sessions, participants had the chance to identify, from their own perspective, the most and least sustainable aspects of UF's operations, academics, and governance structure. Following are the aspects identified by participants multiple times across the sessions. **THIS LIST REVEALS PERCEPTIONS HELD BY THE CAMPUS COMMUNITY.**

MOST SUSTAINABLE

Irrigation

- 90% reclaimed water

Alternative transportation options

- Biking

- GreenRide and Flexcar

- RTS

Gator Dining

- Regionally sourced produce

LEED commitment

Student enthusiasm

Incentives for activating faculty and staff interest

UF's commitment:

- Office of the President

- Office of Sustainability

LEAST SUSTAINABLE

Energy consumption and waste

Transportation

- RTS pollution - air and noise

- Biking safety

- Single occupancy vehicle travel

Decentralized campus

- Dysfunctional bureaucratic structure

Sustainability - lack of integration into campus operations and culture

Inefficient use of space in the built environment

Academics - not enough sustainability-related content

Opportunities for donors to contribute to sustainability initiatives other than new buildings

HOW TO READ THIS REPORT

This report is the result of a series of collaborative sessions, with over 100 members of UF and the broader community, to develop a vision for sustainability at UF. The contents of this report represent their efforts to develop a comprehensive, yet distinct, vision for each of UF's guiding principles for sustainability. Each principle topic is comprised of several sections, as illustrated in the snapshot below:

Each section opens with a brief *Description of Importance and Reason for Inclusion.*

Guiding Principle

Recent Accomplishments offers important examples of recent progress in this area

Benchmark Programs offers brief descriptions of related examples from peer or leading institutions.

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How Are We Doing? provides an overview of UF's performance and activities in this area.

Reaching the Vision offers the opportunities identified by participants for achieving the vision.

Framing the Vision provides an overview of the vision, generated from each session.



SESSION SUMMARIES



TEACHING AND RESEARCH

Description of Importance and Reason for Inclusion

As a top-tier research and land grant university, the University of Florida is uniquely positioned to combine its research capacity with its outreach and extension mission to develop interdisciplinary institutes and programs that deliver important research to the public. As we educate future leaders and active members of our global community, UF can integrate sustainability into teaching, learning, and practice by increasing the opportunity for comprehensive sustainability-related studies. Sustainability-related courses, which span a wide range of disciplines, can provide our students with the knowledge and tools necessary for fostering our collective movement toward sustainability.

Guiding Principle

Stimulate and facilitate curricular development and research efforts in sustainability-related areas, including the promotion of service-learning and the empowerment of faculty, students, and staff to engage the campus community, university operations, and university lands as living laboratories for sustainability.

How Are We Doing?

CENTERS AND INSTITUTES: A review of the current programs at the university reveals a large number of centers and institutes that address one or more of the dimensions of sustainability directly, often as the core of their mission. Examples of some of the centers that address issues of environmental, economic and social sustainability include the McGuire Center for Lepidoptera and Biodiversity,

the Center for Environmental Policy, and the Powell Center for Construction and Environment. Continuing education in sustainability-related fields is available through the Center for Training, Research, and Education for Environmental Occupations (TREEO).

UNDERGRADUATE COURSES: Beyond research efforts, talented and committed undergraduate students are the great strength and pride of the University of Florida. Over the past decade, committed faculty members have introduced students to sustainability in a variety of ways, including semester-long lecture series. The first several series, entitled “Conversations in Sustainability” fostered interest in and knowledge about sustainability. In 2005, an interdisciplinary undergraduate class was generated

program supports faculty who wish to develop new service learning courses by connecting them to community contacts as well as current faculty teaching such courses. (See also Community Service)

INTERDISCIPLINARY EFFORTS: UF also hosts ad hoc interdisciplinary efforts that are explicitly designed to foster sustainability research and extension on campus. One of these is a loosely affiliated group of faculty, the UF “Roadies.” The group consists of faculty and students on campus with shared interests in the impacts of infrastructure on the sustainability and adaptability of linked social and ecological systems. Included in the group are experts on ecology, sociology, anthropology, land tenure, mathematics, geography and remote sensing, and economics. The goals of the group include interdisciplin-

Beyond research efforts, talented and committed undergraduate students are the great strength and pride of the University of Florida.

under the auspices of the Sustainability Committee entitled “Facets of Sustainability.” UF currently boasts more than 100 courses, 10 academic programs, and 23 centers that emphasize concepts of sustainability.

SERVICE LEARNING: A program to support service learning at UF exists within the Center for Leadership and Service. The program helps introduce students to the value of community service and service learning and provides information on existing opportunities. Additionally, the

ary research and the development of a strong, interdisciplinary field component to test and refine ideas.

Recent Accomplishments

PROVOST FACULTY FELLOW: The university provost has signaled support of an academic focus on sustainability by appointing a Provost Faculty Fellow for Sustainability, to be funded through that office. The fellow will work with the provost to connect UF’s rich and diverse current course and research offerings to create a dedicated course of study

in sustainability. (See also Institutional Commitment)

SUSTAINABILITY MINI-GRANTS: The Office of the Provost supported a 2006-07 mini-grant program for faculty wishing to incorporate sustainability into course work. (See also Institutional Commitment)

SUSTAINABILITY MINOR: An ad hoc committee, including student leadership, developed criteria for an undergraduate Minor in Sustainability Studies, to begin in fall 2008. Coursework will be interdisciplinary and include a service learning capstone option. (See also Community Service)

SUSTAINABILITY MAJOR: The College of Design, Construction and Planning has developed an interdisciplinary undergraduate Bachelor of Science in Sustainability and the Built Environment, intended to train UF students interested in sustainability and the built environment through a series of interdisciplinary and disciplinary lectures, studios, seminars and internships. Courses will be offered in conjunction with the college's disciplinary units: architecture, building construction, interior design, landscape architecture, and urban and regional planning. UF sophomores will be eligible to apply for the program. Specific additional courses from across campus are recommended to the students as electives, on an individual basis. (See also Built Environment)

SUSTAINABILITY-RELATED RESEARCH: UF has recently established two interdisciplinary hubs for sustainability-related research on campus.

- Florida Institute for Sustainable Energy (FISE) brings together research capabilities necessary to create a sustainable energy future. FISE encompasses more than 150 faculty members and 22 energy research centers at the University of Florida. In the last few years alone, UF's Federal and State funded energy research exceeded \$70 million. The FISE Technology Incubator includes a Prototype Development & Demonstration Laboratory and a Biofuel Pilot Plant to accelerate commercialization of energy technologies and processes. (See also Energy Conservation and Climate Change)

- UF Water Institute was established in recognition of the importance of water issues, and the need to address them in an interdisciplinary manner. Through the Water Institute and IFAS extension offices, UF is the hub for information and best water practices in the State. The Water Institute aims to improve knowledge of the physical, chemical, and biological processes in aquatic systems; enhance understanding of the interactions and interrelationships between human attitudes/activities and aquatic systems; and develop as well as promote the adoption of improved methodologies for water



management and policy based on science, engineering, management, and law. (See also Land & Resource Management)

ONGOING FUNDING SUPPORT: A Legislative Budget Request (LBR) for a UF Center for Sustainability and a Healthy Environment was drafted by the Sustainability Committee. This Center would act as an academic clearinghouse for sustainability efforts on campus, and would support both internal faculty, as well as affiliated faculty, from across campus in their research and education efforts. The LBR was vetted by interested parties at several meetings, and submitted to the

deans and vice presidents for approval. The vice presidents selected it from among a larger pool to be submitted to the Florida Legislature. Although the LBR has not been funded (the state LBR process is on hold), it is on UF's federal list of funding requests. (See also Institutional Commitment)

COMMON READING PROGRAM: The Common Reading Program is designed to provide all first-year students with a common intellectual experience to stimulate discussion, promote critical thinking, and encourage a sense of community among students, faculty and staff. This program seeks to expose students to issues relevant in today's global community, provide students with a shared experience upon which to engage in dialogue with peers, faculty, and staff at UF, and introduce students to the high academic and intellectual expectations at UF.

The book was chosen by a 20-person committee comprised of faculty, staff, and students with the charge of selecting a book that is interdisciplinary, global, recently published, and relatable to both first-year students and the campus community. This year's text, *When Rivers Run Dry*, is a groundbreaking book following veteran science correspondent Fred Pearce to more than thirty countries to examine the current state of crucial water sources.

Benchmark Programs

Northern Arizona University and Emory University have implemented interdisciplinary efforts to incorporate sustainability issues into university courses. The

programs, Ponderosa Project and Piedmont Project respectively, seek faculty members from various disciplines who share a common vision of education for sustainability. Participants in the projects attend an intensive three-day training workshop in which they learn about sustainability-related issues and how to incorporate such issues into course materials. After their training, participants revise syllabi for selected courses to include sustainability-oriented content, and meet regularly throughout the academic year in support of these "greening" of the curriculum projects.


Arizona State University has established a School of Sustainability and a Global Institute of Sustainability,

providing innovative, interdisciplinary education and research opportunities for undergraduate, graduate, and professional students. The degree offerings are flexible, interdisciplinary, problem solving-oriented programs in which students explore the sustainability of human societies and the natural environment on which they depend.

Framing the Vision

In framing the vision for sustainability in Teaching and Research, participants envisioned the University of Florida integrating sustainability into curriculum and research to the degree that sustainability would become second nature to the university community. In this vision, curricula would be developed through





a sustainability lens. Graduates would understand and value sustainability and be able to apply critical thinking and problem solving skills to the dilemmas humanity currently faces. Campus institutes would foster interdisciplinary research and form a repertoire of best practices for a sustainable society. Through the integration of operations, teaching, research, and outreach, UF would create a well developed culture of sustainability that would yield a sense of “empowered optimism” throughout the Gator Nation.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

SUSTAINABILITY TRAINING: Create opportunities for all faculty, staff, and administrators to gain access to sustainability resources and training.

FORMAL SUSTAINABILITY OFFERINGS: Develop formalized, institutionalized, interdisciplinary, academic programs that support teaching and research for sustainability including a minor, departmental majors, Masters degrees, PhD offerings, and post-doctoral training.

INTEGRATE SUSTAINABILITY IN ALL DEPARTMENTS: Develop a core sustainability requirement in every college. Sustainability and service learning would be integrated into courses across the curriculum. All departments would support sustainability initiatives as a part of university culture; all graduates would understand, respect, and value sustainability.

INTERDISCIPLINARY RESEARCH: Provide support and incentives for students, faculty, and staff to cross departmental boundaries and approach problem solving in a multifaceted way. This includes creating and supporting incubators on campus for sustainable development research.

WALK THE TALK: UF would operate as a living laboratory for sustainable practices (i.e. paperless admissions).

STATE FUNDING SUPPORT: The Florida Legislature would approve the Legislative Budget Request for the creation of a Center for Sustainability that supports focused, interdisciplinary, integrated sustainability research.

FACULTY AND STAFF INVOLVEMENT: Gather support for sustainability from all deans, directors, department heads, and other administrators. Job descriptions, annual evaluations, promotions and tenure decisions would include criteria related to sustainability efforts for all faculty and staff. A reward system would be in place for faculty and researchers promoting interdisciplinary sustainable solutions. This would be apparent in hiring, evaluations, promotions, funding, and recognition processes.

FLEXIBLE ADMISSIONS POLICY: The application and admittance process would recognize different types of intelligence in admissions, beyond test scores and GPA. The admissions office would consider a diverse class of applicants with a variety of skills appropriate to each college. College standards would include those who think creatively, take logical

leaps, are artistic, and demonstrate social awareness. Skills and interest in design, planning, problem solving, decision making, and leadership would be valued alongside academic performance.

REPUTATION FOR SUSTAINABILITY: UF graduates would become known for their critical thinking skills. This could be shown through an assessment or indicators of cultural and generational change in sustainability literacy for students - perhaps by pre-test for freshman and post-test for seniors. Students, faculty and staff would reach out into the community to educate pre-collegiate children about sustainability. UF would receive market recognition for teaching, research, and career placement related to sustainability.

Participants:

Tom Ankersen, Levin College of Law
Eva Czarnecka-Verner, Microbiology, Sustainability Committee representative
Mindy Kraft, Warrington College of Business
Joe Peters, President's Office- ACE Fellow
Ana Portocarrero, Warrington College of Business
Kay William's, Landscape Architecture
Christine Winget, Warrington College of Business



SERVICE, OUTREACH, AND EXTENSION



Description of Importance and Reason for Inclusion

Service learning opportunities and civic engagement can be key components of a university education, as they provide students with the preparation they need to become active, effective citizens in a changing world. Opportunities for service learning abound on campus, within the local community, and throughout the state.

Town-gown relationships are a significant issue for many colleges and universities, both public and private. Clear, open

communication is the keystone of local community sustainability, and supportive dialogue is the foundation for strong partnerships. UF and its surrounding community have a unique relationship whose linkages are as diverse and complex as the university's own internal structure. In order to support these linkages, UF must foster a growing environment of collaboration that helps create synergy between UF, the City of Gainesville, Alachua County, and the State of Florida.

As a land grant university, the University of Florida is committed to providing scientific knowledge and expertise to the public. The mission of the UF/IFAS Extension Service is to provide Floridians with life-long learning opportunities that respond to the local needs of residents, schools, regulatory agencies, community organizations and industry. In cooperation with county governments, the United States Department of Agriculture, and Florida A & M University, UF endeavors to deliver research applications to local communities as they make the effort to become sustainable.

Guiding Principle

Facilitate the civic engagement of faculty, students, and staff and stimulate service, outreach, and extension efforts that promote sustainable practices within community and economic development.

How Are We Doing?

SERVICE: The Dean of Students Office - Center for Leadership and Service is made up of several branches that serve as avenues of involvement for particular community interests. These include community outreach, volunteer development, and civic engagement. One group, Service Ambassadors, plans events that educate citizens about prevalent issues in order to remind individuals of their civic responsibility and to inform them of the opportunities available to those who choose to make a difference. The center also matches students with service opportunities throughout the local community. It facilitates service learning for UF faculty, and provides leadership workshops and conferences for students and the community. It offers our students these opportunities nationally, and internationally, through Florida Alternative Breaks. These trips expose students to issues including: disaster relief, homelessness and poverty, HIV/AIDS, farm workers rights, global warming, and sustainable development. Finally, it runs the Community Advocates program to teach students about community service, personal safety, and civic engagement in cooperation with the City of Gainesville.

OUTREACH: Like other elements of the University of Florida's sustainability efforts, community outreach is simultaneously widespread and focused. Three

avenues for outreach have proved most successful to date. First, websites, local conferences, exhibits, performances, and trainings are visible gateways through which the larger local and state communities can engage UF's sustainability resources. Second, individual students work within these communities, providing service as part of coursework or in conjunction with extra-curricular activities. Third, academic programs provide enrichment to underserved portions of the local and state communities through grants and state appropriations.

Community and intergovernmental coordination is a cornerstone of the university's planning efforts. Collaboration occurs on many fronts including transportation, infrastructure, community redevelopment, community service and volunteerism, transit service, and economic development. The university is a primary provider of community economic growth, healthcare, and public education. In recognition of these relationships, the campus master plan formalizes reciprocal community planning processes between the university and its host local governments.

The Community Relations Office at UF also works to promote mutual understanding and supportive relationships in the community. It serves as an information resource and a point of contact for all members of the community. It works to help identify and resolve public policy issues of concern to both the university and the community, in collaboration with UF and public officials. It implements the annual University of Florida Community Campaign, a faculty/staff

charitable giving campaign, which raises more than \$1 million for a wide variety of charitable organizations in the area.

EXTENSION: UF IFAS Solutions for Your Life campaign and website share lessons and research in sustainability with Florida citizens. Extension faculty and administration have helped bring UF resources to communities seeking assistance in developing more sustainable practices and policies. IFAS/Extension has many award winning programs that facilitate sustainable living including the Living Green series for television, Florida Yards & Neighborhoods program, Integrated Pest Management Florida, and the Program for Resource Efficient Communities.

Recent accomplishments

SUSTAINABILITY MINOR CAPSTONE:

Student leaders and the Provost Faculty Fellow for Sustainability developed an

UF IFAS Solutions for Your Life campaign and website share lessons and research in sustainability with Florida citizens.

undergraduate Minor in Sustainability Studies, including a service learning capstone component. (See also Academics)

OFFICE OF SUSTAINABILITY INTERNSHIPS:

The Office of Sustainability offers internships to students to work on a variety of projects related to implementing sustainability in UF operations and sustainable behavior change campaigns.

THE FLORIDA COMMUNITY DESIGN

CENTER: The Florida Community Design Center (FCDC) strives to educate and advocate for good design in the natural and built environment. Run by UF faculty and assisted by UF students, the FCDC has worked with developers and local officials on almost two dozen projects in the community since 2000. From its downtown Gainesville location, FCDC offers walking tours, panel discussions, and public workshops to inform the public and seek input. Exhibits provide the public an opportunity to view ongoing community design work.

The Cotton Club Restoration: The Cotton Club, as it is now known, has been a landmark in southeast Gainesville for half a century. It started as a World War II Army PX at Camp Blanding, near Starke, FL. After the war, a Springhill neighborhood grocer

brought it to its current location in Gainesville. The barnlike structure debuted as the Perryman Theater but was soon leased and became Sarah's Cotton Club. It was then that the building earned its fame as young acts like B.B. King and James Brown came through on the Chitlin' Circuit, heating up the local hot spot. The site's rich history is being preserved through a restoration partnership between The Mt. Olive

A.M.E. Church and the University of Florida's Powell Center for Construction & Environment's Historic Preservation Program.

THE BUSHNELL CENTER FOR URBAN SUSTAINABILITY: Operating through the IFAS/Extension network and based in Pinellas County, the Bushnell Center seeks adoption of sustainable practices in the larger community. It provides education and outreach for organizations undergoing a sustainability transformation and facilitates the creation of public-private regional and statewide partnerships.

Benchmark Programs

The University of North Carolina, Chapel Hill (UNC) identifies community participation and public service as one of the key elements of its mission. To acknowledge this formally in students' official academic records, the university awards students who perform at least 300 hours of public service work to the community a Distinction in Public Service designation on their official transcripts. Community-oriented partnerships are the focus of UNC's \$16.5 million Active Living by Design program, through which up to \$200,000 over five years will be awarded to 25 interdisciplinary organizations that promote physical activity by changes in local community design, transportation and architecture.

Framing the Vision

In framing the vision for sustainability in Service, Outreach and Extension, participants envisioned the University of Florida educating the next generation of leaders and providing tools for solving

the problems faced by our communities. In this vision, UF would be recognized for outstanding student, faculty, and staff community service/civic engagement. All members of UF would see themselves as part of a larger community and be actively engaged in service outside of their work and studies; this would engender respect for others and for the community as a whole.

Further, the University of Florida would become a resource, providing volunteer experience, ideas, and sustainable solutions to the public. We would encourage students to explore their extracurricular

them as they moved into the workplace, and remain involved in civic engagement and service throughout their lives.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

RECOGNITION AND REWARDS: Establish programs to recognize and reward faculty for participating in service learning and demonstrating sustainability practices. Create incentive programs for all faculty and staff to participate in community service during regular business hours. Allow



interests while attending UF, and provide ways to gain experience in pursuing those interests through service to the community. Alumni would carry that ethic with

for expansion of the UF Community Campaign to include an option for volunteering in addition to donating money.



The University of Florida would become a resource, providing volunteer experience, ideas, and sustainable solutions to the public.

DEPARTMENTAL SUPPORT FOR SERVICE LEARNING: Support would be provided through dedicated staff and/or an office to support faculty who incorporate service learning. Ultimately, the university would offer service learning programs in every college on campus, with a service learning/civic engagement liaison in each department for communication of opportunities.

EDUCATE THE CAMPUS COMMUNITY: Students, faculty, and staff would understand the difference between direct service, civic engagement, and service learning. In order to enhance student experience, UF would provide faculty/student mentorships for sustainability-related internships.

ACCESS TO OPPORTUNITIES: Create an online campus-wide resource guide, with lists of community service and civic engagement opportunities available at UF that would be available to the community at large.

RECORD AND REPORT SERVICE ACTIVITIES: Develop accurate reporting procedure for community service hours and report student community service hours on UF transcripts. Use this data to create a community service and civic engagement annual report and incentive/recognition programs. Such recognition will further

incentivize service while demonstrating UF's commitment to the community.

SUPPORT THE COMMUNITY FINANCIALLY: UF would make community re-investment an investment priority. Monies would be invested locally by creating micro-credit or other loan programs for community development.

VISION FOR SUSTAINABILITY IN EXTENSION: UF/IFAS Extension would develop a collaborative vision to incorporate sustainable living resources into their service to Florida's unique communities.

- Participants:**
- Robert Agrusa, 2007-08 Student Senate President*
 - Florida Bridgewater-Alford, Community Relations*
 - Fred Cantrell, Business Affairs, Sustainability Committee representative*
 - Linda Crider, Urban and Regional Planning, Sustainability Committee representative*
 - Nora Kilroy, Office of Off-campus Life*
 - Andrew Perrone, Center for Leadership and Service - Dean of Students Office*
 - Dale Pracht, Family, Youth, and Community Services*
 - Tracey Reeves, Center for Leadership and Service - Dean of Students Office*
 - Lynda Reinhart, O'Connell Center*
 - Ruth Steiner, Urban and Regional Planning, Sustainability Committee representative*





ENERGY CONSERVATION AND CLIMATE CHANGE



Description of Importance and Reason for Inclusion

The energy used by our institutions yields ever-increasing environmental, social, and economic repercussions. Currently, the University of Florida spends an average of \$3.3 million per month for electricity alone. The university has a powerful opportunity and ongoing interest in reducing energy consumption, saving money, and demonstrating leading edge practices in energy management.

Emissions produced during the combustion of fossil fuels for electricity production and transportation enter the atmosphere directly. These greenhouse gas (GHG) emissions are linked to the changing climate on this planet. The overwhelming scientific consensus is that climate change is among the most pressing problems facing this genera-

tion and those to come. Some widely agreed upon effects of a changing climate include increased catastrophic weather events such as drought and floods; disrupted agricultural output; and rising sea levels.

Some emissions also contribute to a wide variety of health problems, including heart and respiratory diseases. Due to disproportionate exposure and the lack of preventative health care, these problems are often more pronounced in low-income communities. The extraction, production, and global distribution of fuels for energy can damage environmentally and/or culturally significant ecosystems. A campus can dramatically reduce these negative consequences by reducing energy consumption and switching to renewable energy sources.

Guiding Principle

Monitor and minimize energy consumption, reduce and offset greenhouse gas emissions, and promote the development and use of renewable energy sources.

How Are We Doing?

Energy Office: UF's Office of Energy Conservation monitors and works to lower campus energy consumption by incorporating new, efficient technologies for use on campus. The office is engaged in building evaluations and scheduling in order to curb current consumption trends. Future plans include an automated meter reading system, improved building control systems, and research into various building systems that lower energy consumption. The Office of Energy Conservation has established points of contact throughout campus to assist in lowering campus energy consumption and fostering an awareness of energy conservation issues on campus.

GOVERNANCE: The UF Sustainability Committee's Energy and Climate Change Task Force assesses the energy systems of the university, including the supply and consumption sides, for the purpose of minimizing both energy costs and environmental impacts. Recently, this taskforce developed a working group specifically to address the carbon footprint of UF, and to develop a plan to meet UF's carbon neutrality goal.

LEED COMMITMENT: In order to reduce the energy needs of campus buildings, the university adopted criteria for design and construction for all major new construction and renovation projects to deliver high performance and sustain-



able buildings. The LEED (Leadership in Energy and Environmental Design) building rating system was developed by the U.S. Green Building Council as a national standard for evaluating and certifying individual projects as green buildings. This commitment was renewed in January 2006, when UF required that

American College and University President's Climate Commitment. UF is one of more than 500 signatories to the American College & University Presidents Climate Commitment. The commitment provides a framework and support for colleges and universities to go climate neutral. The commitment

reduce and remediate their campuses' greenhouse gas emissions over time. This involves: completing an emissions inventory, setting a target date and interim milestones for becoming climate neutral, taking immediate steps to reduce greenhouse gas emissions, integrating sustainability into the curriculum, and making the action plan, inventory and progress reports publicly available. (See also Institutional Commitment)

In 2007, UF President J. Bernard Machen was the first to sign the American College and University President's Climate Commitment.

all new campus construction and major renovation projects approved as of July 1, 2004, meet a LEED Silver equivalent certification standard, and again in 2007 when UF initiated a LEED Campus Standards application for the whole main university campus and started the LEED Existing Building Pilot Program. (See also Built Environment)

recognizes the unique responsibility that institutions of higher education have as role models for their communities and in training the people who will develop the social, economic and technological solutions to address the effects of global climate change. Presidents signing the commitment are pledging to

GREENHOUSE GAS INVENTORY 2.0: The UF Greenhouse Gas Inventory 2.0 will feature emissions generated through the use of electricity, natural gas, steam, chilled water, liquid fuels, air transport, commuting, fleet vehicle activities, as well as emissions from refrigerants, lab chemicals, fertilizers, live stock, waste streams and carbon sinks, and is planned to be operational July 1, 2008.

FUELS: Through a commitment to purchasing only hybrid or alternative fuel vehicles whenever possible, the university's fleet now has more than 12 hybrids and 45 flex fuel vehicles. Additionally, the university stocks E85 ethanol for use in its fleet vehicles, and stocks B20 biodiesel for trucks and mowers. It offers a suite of alternative transportation options for commuters and campus residents. (See also Transportation)

Recent Accomplishments
AMERICAN COLLEGE & UNIVERSITY PRESIDENTS CLIMATE COMMITMENT:
In 2007, UF President J. Bernard Machen was the first to sign the





ENERGY-RELATED RESEARCH: Florida Institute for Sustainable Energy (FISE) brings together research capabilities necessary to create a sustainable energy future. FISE encompasses more than 150 faculty members and 22 energy research centers at the University of Florida. In the last few years alone, UF's Federal and State funded energy research exceeded \$70 million. The FISE Technology Incubator includes a Prototype Development & Demonstration Laboratory and a Biofuel Pilot Plant to accelerate commercialization of energy technologies and processes. (See also Teaching and Research)

Benchmark Programs

The College of the Atlantic was the first school in the nation to make a multi-year commitment to purchasing 100% of its electricity through wind energy for the next 20 years, eliminating its production of CO2 and other pollutants.

Lewis & Clark College was the first campus in the nation to reduce its GHG emissions seven percent below its own 1990 levels, thereby achieving Kyoto protocol compliance, partially through the purchase of CO2e offset credits.

Several institutions, including The Woods Hole Research Center, the University of British Columbia, and Oberlin College have placed real-time energy meters on the internet for easily accessible energy consumption data.

Framing the Vision

The University of Florida set a visionary goal of carbon neutrality by 2025. Meeting this goal will require collaboration

among campus units and the development of widespread partnerships within the broader community.

In framing the vision for sustainability in Energy Conservation and Climate Change, participants envisioned that monitoring energy use, keeping a GHG inventory, and maximizing energy conservation across campus would be incorporated into daily operational management goals. All UF units, departments, auxiliaries, and Direct Support Organization's (DSOs) would understand these goals, and would work to reduce energy use. Carbon neutrality goals and plans would be incorporated into UF policies and the UF Master Plan for long-term management.

To the extent possible, we would integrate renewable, distributed energy production into buildings so that they would produce the energy that they used.

The University of Florida set a visionary goal of carbon neutrality by 2025.

We would purchase renewable energy to supplement these power needs. Finally, UF would offset our remaining carbon footprint through local efficiency and sequestration partnerships.

Our campus would operate as a living laboratory for sustainable energy generation, integrating research and operations. UF faculty, staff, and students would set an example for others on how to conserve energy and reduce GHG emissions

on campus and in their personal lives. To this end, we would conduct a comprehensive conservation campaign, based on community based social marketing principles, that considers and reaches all of our stakeholders: students, faculty, staff, administration, alumni, parents, and community members.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

COMPREHENSIVE INVENTORY: UF would have a thorough inventory that takes into consideration our entire carbon footprint, including transportation, research, campus operations, and IFAS Extension. This inventory would help all campus citizens identify and therefore reduce their energy expenditures.

REDUCTION GOAL SETTING: We would establish baselines for all areas in order

to set reduction goals. Our goals and strategies would be in alignment with the Florida Governor's June 2007 Executive Orders and the most stringent regulatory frameworks (federal, state or local) for carbon planning.

BUILDINGS: We would capture the maximum energy efficiencies across campus in new construction, setbacks, and retrofits for existing building stocks. (See also Built Environment)

RENEWABLE ENERGY: We would encourage our energy provider to develop a robust portfolio of renewable energy options, including distributed energy production on campus.

RESEARCH: The Florida Institute for Sustainable Energy's Technology Incubator would accelerate commercialization of energy technologies throughout Florida by developing and demonstrating renewable energy technologies on campus.

CARBON OFFSETS: Our offsets would be met, to the greatest extent possible, through efficiency, and through local sequestration partnerships. Offset purchases would only be made if local/regional partnership opportunities had been exhausted.

PROJECT FUNDING: We would work with business and government partners to receive grants and other funding to help finance our efficiency goals. UF would develop a revolving loan fund and other internal funding mechanisms for efficiency retrofits and renewable energy innovations.

Participants

Canan Balaban, Florida Institute of Sustainable Energy

Greg Burkett, Progress Energy

*Eric Cochran, Physical Plant Division L.
Amelia Dempere, Materials Engineering,
Sustainability Committee representative*

Gary Dockter, Progress Energy

*John Lawson, Physical Plant Division,
Energy Department*

Jill Lingard, Warrington School of Business

David Lucier, O'Connell Center

*Andy Olivenbaum, Computer and
Networking Services*

*Robert Ries, Rinker School of Building
Construction*

*Eric Wachsman, Florida Institute of
Sustainable Energy*

*Ann Wilkie, Agricultural and Biological
Engineering*

Mark van Soestbergen, ICBE





LAND AND RESOURCE MANAGEMENT

Description of Importance and Reason for Inclusion

While demands for ecosystem services such as food and clean water are growing, human actions are diminishing the capacity of many ecosystems to meet these demands. Sound policy and management principles are critical to maintaining ecosystem health, and therefore, human well-being.

As a society, we are still learning to balance the convenience and short-term effectiveness of chemical pesticides with the long-term costs and impacts of their use. Through the integration of ongoing research and operations, UF can retain healthy, aesthetically pleasing landscapes, minimize pest-related property damage, and prevent the spread of pest-transmitted diseases, while minimizing the as-

- Promoting indigenous species and appropriately limiting the use of inorganic pesticides, herbicides, and fertilizers.
- Developing educational interpretations to promote biodiversity.
- Setting up a land management committee to review and guide sustainable management of UF lands.
- Conserving areas by designing the university's built environment into a denser urbanized center.

UF can serve as a model of sound, adaptive protection and management of natural areas for the campus community and the community at large.

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The maintenance of sustainable urban landscapes is a crucial part of maintaining ecosystem health. As an institution of higher learning, UF can serve as a model of sound, adaptive protection and management of natural areas for the campus community and the community at large.

In Florida, our water comes from the Floridan Aquifer — a massive underground river. Our everyday activities can drastically affect the quality of this water and ultimately our health. The State of Florida has the second highest rate of water consumption in the US. In north-central Florida, the average person uses approximately 150 gallons of water per day - almost double the national average. More than half of residential water use is used for home irrigation. The University of Florida has the opportunity, and responsibility, to be a model for efficient, responsible water use and for the effective management of wastewater and stormwater through research and demonstration.

sociated negative impacts to the campus community and the environment.

Guiding Principle

Manage lands in a sustainable manner to conserve, protect, and restore natural systems, natural resources, and biodiversity.

How are we doing?

LAND MANAGEMENT: UF's main campus features 31 conservation areas, including The University of Florida Natural Area Teaching Laboratory (NATL) which is dedicated to teaching students and the public about ecology and biotic diversity. NATL consists of 60 acres in two contiguous tracts in the southwest corner of campus.

The university has set a number of goals for the management of biodiversity on its lands, which include:

- Managing lands so that there is no net loss of biodiversity.

MASTER PLAN: The UF Master Plan outlines policies for responsible stewardship of land resources and sustainable campus development. The campus is managed as a total human ecosystem - balancing human and natural systems. Conservation areas are identified and protected in the Master Plan. These create what is often described as a specific "sense of place" on campus in settings where people connect with one another and with the North Central Florida environment. The Master Plan encourages use of the campus as a "living laboratory" to model sustainability-related application, research and teaching. The health of our ecosystems is taken into account, and UF strives for aesthetics that mimic and are in balance with the ecology of our region. Landscaping with native plants, Florida-friendly practices, and butterfly gardens supports a healthy campus ecosystem. Reduction of ornamental plants, lawns, and irrigation are within this landscape management plan.

EXTENSION: Through IFAS, the university has a number of programs where research, application, and education

about sustainable land and resource use are available. A few examples include the Florida Partnership for Water, Agriculture & Community Sustainability; the Integrated Pest Management (IPM) Florida Program; and the Program for Resource Efficient Communities (PREC). The Florida Partnership for Water, Agriculture & Community Sustainability uses “living” displays to show visitors alternatives to traditional practices in development, agriculture, landscaping, water quality and use, and land management. These include low-impact development (LID), Florida-Friendly landscaping principles, and niche crops. The Integrated Pest Management (IPM) Florida program provides up-to-date in-

Recent Accomplishments

AUDUBON COOPERATIVE SANCTUARY: In 2005 the Audubon Cooperative Sanctuary System designated UF as a “Certified Audubon Cooperative Sanctuary.” UF is the first university to achieve this status, making it one of 607 such sanctuaries in the world. To achieve the designation, UF had to demonstrate that it was maintaining a high degree of environmental quality in five areas: environmental planning, wildlife habitat management, resource conservation, waste management and outreach and education.

NATIVE FLORIDA-FRIENDLY LANDSCAPING: Through Florida-friendly practices, UF has shown it is possible to have beautiful

healthier, more diverse landscape. UF is also beginning implementation of low impact development techniques where possible to help manage stormwater runoff. Florida-friendly landscaping practices are fully supported by a comprehensive website for homeowners and landscape professionals.

STUDENT GARDENS: UF offers a number of opportunities for students to grow their own food on campus. Both the organic garden and the student garden plots are available for a nominal fee. The Ethnoecology Society also maintains a demonstration garden, which highlights native and traditional food crops.

WATER RECLAMATION: UF’s Water Reclamation Facility processes up to three million gallons of waste water a day. With the exception of some sports/recreation areas and distal areas, over 90% of the university’s irrigation needs are served by the reclaimed water system thereby greatly reducing campus use of potable water for that purpose. Reclaimed water is also used to cool the adjacent co-generation power plant.

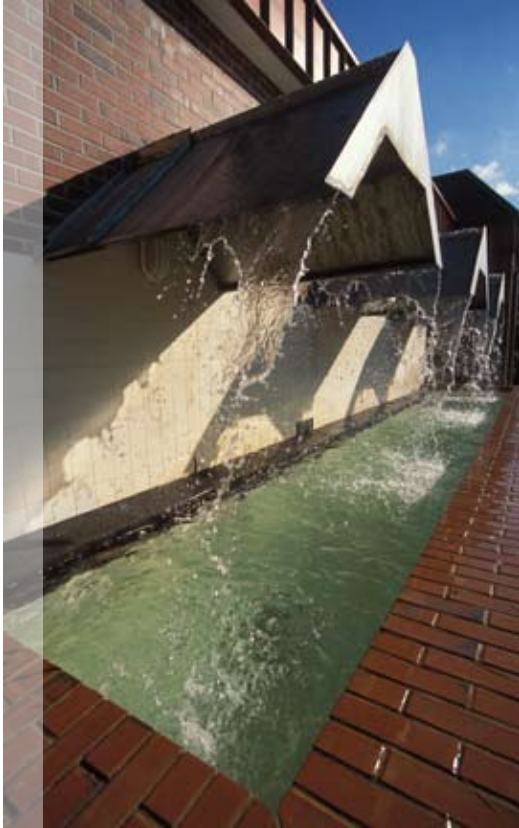
RECLAIMED WATER STORAGE: The university is building a new 1.5 million gallon water storage tank. When reclaimed water supply exceeds demand, reclaimed water that meets drinking water standards can be stored in the tank, rather than discharged. When reclaimed water demand exceeds supply, the storage tank can be accessed to reduce the need for supplemental fresh water use.

UF WATER INSTITUTE: In recognition of the importance of water issues, and the need to address them in a new interdisciplinary manner, the University of Florida



formation on IPM with special emphasis on IPM practices of relevance to Florida. PREC promotes the adoption of best design, construction, and management practices in new residential community developments by working with both government and the private sector.

landscaping without daily irrigation or excess chemical application. In addition, the implementation of native plant landscaping has reduced the need for irrigation and chemical applications in some areas. Specifically, our butterfly gardens bring color to the landscape, attract beneficial insects, and create a



established a campus-wide interdisciplinary Water Institute in May 2006. Through the Water Institute and IFAS Extension offices, UF is the hub for best water practices information in the State. (See also Teaching and Research)

CLEAN WATER CAMPAIGN: The UF Clean Water Campaign aims to build awareness of water quality issues and solutions on the University of Florida campus. It works together with administration, students, faculty and staff to reduce pollution in campus water bodies through water quality monitoring, storm drain marking, implementing pollution prevention practices, and analyzing storm-water effects on each campus water basin.

WATER RESOURCE EDUCATION:

The university's Common Reading Program is designed to provide all first-year students with a common intellectual experience to stimulate discussion, critical thinking, and encourage a sense of community among students, faculty and staff. In 2008-2009, all incoming students will receive a copy of the selected text, *When Rivers Run Dry*. (See also Teaching and Research)

Benchmark Programs

At Oberlin College, the Adam Joseph Lewis Center for Environmental Studies includes a Living Machine(r) to treat its wastewater to tertiary standards. This solar-powered, microbe-based ecosystem uses a diverse assortment of bacteria, algae, snails, fish, and flowers working together to break down contaminants and purify the building's wastewater. The system purifies

2000 gallons of water each day and the resulting water is used for toilet flushing and irrigation. The Living Machine not only purifies the building's wastewater, but also educates students, faculty, staff, and visitors about natural wastewater treatment processes and provides research opportunities to students.

The University of British Columbia's C.K. Choi Building (30,000 sq. feet) features composting toilets that reduce the amount of wastewater by 90%. The aerobic composting system is continually ventilated and produces an end product used as a humus-like soil amendment product. In addition, all irrigation de-

rives from rainwater stored in 8000-gallon subsurface cisterns. UBC also posts real-time water consumption and real-time water savings information, showing corresponding monetary savings, on its campus sustainability website.

The University of North Carolina-Chapel Hill now requires a site-specific plan for erosion control for all construction. They have built a 70,000-gallon underwater cistern for retaining stormwater and irrigating the sports field located directly above the tank. They also purchased a vacuum truck for reducing the pollutant load in stormwater runoff and replaced pavement in two parking lots with permeable concrete and asphalt, decreasing associated surface runoff.

Framing the Vision

In framing the vision for sustainability in Land and Resource Management, participants envisioned the University of Florida adopting collaborative and responsive processes for land and water management. Both technological improvements and behavior change would play significant roles in sustainable resource management. In this vision, decision makers would adhere to the campus Master Plan and take a proactive approach to sound management principles rather than coping with problems after implementation. Adaptive management would allow for continuous improvement and the ongoing development of best practices.

To inspire behavior change in the campus community, UF would endeavor to monitor and assess our land and resource use and to educate the campus community about the effects of our collec-



tive practices. Effective feedback and reporting would allow us to hold entities accountable through incentives and/or penalties.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

VIEW CAMPUS AS AN ECOSYSTEM: Use the landscape as a teaching tool to study the intersection of human and natural systems as part of a healthy ecosystem. Outdoor areas would be designed to be energizing and therapeutic to the university community, as well as restorative to the environment.

COMPREHENSIVE LANDSCAPE DESIGN AND MAINTENANCE: Develop a proactive plan that emphasizes good landscape design and outlines maintenance practices.

MODEL SUSTAINABLE CAMPUS: Make UF grounds a model of sustainable design and management. Healthy and aesthetically pleasing environs would inspire community members to spend time outdoors. All students would leave UF with an exposure to, if not understanding of, sustainable landscaping and its effects on the ecosystem.

ADAPTIVE MANAGEMENT: Develop an adaptive management loop between the Master Plan implementation, the Physical Plant Department/Grounds, and researchers to develop and carry out best practices.

RESOURCE CONSERVATION: Educate the campus community on how to decrease consumption and reduce our

environmental impact through resource conservation.

INTEGRATED PEST MANAGEMENT: Establish a transparent IPM plan with metrics to evaluate performance. Effectively reduce the possibility of a pest-transmitted disease outbreak and property damage while minimizing negative impacts on the campus community and environment.

WATER STANDARDS FOR SPECIFIC USES: Create standards for water use, along with criteria for water quality, that include prescribed actions for use and discharge, mitigation strategies, and concomitant policies. All departments, direct support organizations and off-campus facilities would adopt and comply with water standards and policies that are set by the university.

STORMWATER MANAGEMENT: Implement rainwater harvesting for water reuse throughout campus. Design campus sites to keep all stormwater onsite, minimizing negative effects on campus watersheds. Implement low impact development techniques across campus for effective stormwater management (both water quality and quantity). Reduce the impervious surfaces on campus.

LAKE ALICE AND CAMPUS CREEKS: Classify Lake Alice watershed as a living laboratory, functioning as a trial watershed for best practices. No impervious surface drainage would lead directly to Lake Alice. In conjunction, the flow of campus creeks would be naturalized to help restore the watershed.

WATER CONSERVATION: The campus community would treat water as a valuable resource - even if it is not priced that way. Buildings would be individually metered and departments would be held accountable to conservation standards. Incentive and rewards programs would encourage water conservation toward a target indoor per capita indoor water use metric.

Participants:

Glen Acomb, Landscape Architecture
Jeff Chenery, O'Connell Center
Mark Clark, Soil and Water Science
Joe Delfino, Environmental Engineering
Jennifer Gillett, Entomology-IFAS, Sustainability Committee representative
Fred Gratto, Physical Plant Division
James Heaney, Environmental Engineering Sciences
Chuck Hogan, Physical Plant Division
Hal Knowles, Program for Resource Efficient Communities - IFAS
John Lawson, Physical Plant Division, Energy Department
Erik Lewis, Facilities Planning, and Construction
Kathleen McKee, Water Institute
Dale Morris, Physical Plant Division, Solid Waste Management
Jeff Peet, Progress Energy
Marty Werts, Physical Plant Division, Grounds
Kay Williams, Landscape Architecture
Mark Yanchisin, Environmental Health and Safety



AGRICULTURE

Description of importance and reason for inclusion

Food systems consume resources at every step in the value chain from farming to distribution, consumption, and disposal of food and food-related wastes. Fossil fuels are currently used to produce, process, transport and prepare food, contributing to greenhouse gas emissions and air pollution. According to the University of Wisconsin-Madison Center for Integrated Agricultural Systems, food production accounts for 17.5% of all energy used in the U.S. food system, while processing accounts for 28.1%, transportation 11%, and restaurants 15.8%.

Food production systems vary greatly, however, in the efficiency with which they use resources. For example, irrigation is the leading use of freshwater in the United States. In some parts of the western U.S., water for agricultural use far exceeds all other uses. Florida agriculture uses a great deal of water, but actually uses less ground water than water available for public consumption because nearly half of the water used by Florida agriculture comes from surface water. This is important because ground water, unlike surface water, is “fossil” water that has accumulated over long periods of time and is therefore, not a renewable resource in the short term.

Just as the environmental effects of food systems vary greatly from place to place and within different sectors of the food system, so do the economic and social effects. Every choice regarding the production and processing of our food, its transportation to campus, and the preparation and disposal of food wastes

involves trade-offs. As a result, UF’s decisions about the kinds of dining services that we provide for students, faculty, staff, and visitors have important potential repercussions.

Guiding Principle

Promote diverse and sustainable agricultural practices that encourage the protection of farmland and the rural environment, establish food security, and support a high standard of nutrition on campus and in the community.

How are we doing?

UF/IFAS: UF’s Institute of Food and Agricultural Sciences (IFAS) is responsible for agricultural research and extension. A major thrust of IFAS’s work has been enhancing the economic, environmental and social sustainability of food production in Florida. IFAS develops best management practices that minimize the impacts of agricultural activities on

the environment and natural resources. Florida farmers and ranchers in the state have systematically implemented many of these practices to reduce unwanted impacts from agriculture, resulting in positive outcomes like more efficient water use, reduced runoff from agriculture and reduced energy use on farms. In addition, UF/IFAS established the Center for Organic Agriculture in 2001 to provide statewide leadership in research, extension and teaching focusing on organic agriculture and IFAS conducts research in organic agriculture on land that is certified organic.

UF emphasizes providing sustainable, healthy food options on campus that contribute to the overall wellness of students, faculty, staff, and visitors. One outcome of UF’s incorporation of the principles of sustainability into its food services is enhanced opportunities to advance the sustainability of food pro-



duction, processing, transportation and preparation in Florida and nationally.

FOOD SERVICE PARTNERS: UF has worked with ARAMARK's Gator Dining Services (GDS) to develop an action plan for implementing principles of sustainability into food service operations, including regional sourcing of food, green catering, waste management and diversion, energy conservation, transportation impacts, sustainable procurement, communication and marketing. To date, the two dining halls on campus, the Fresh Food Company and Gator Corner Dining Center, are now sourcing regionally grown food, including produce, proteins, dairy, breads, coffee, and more. They also offer vegan and vegetarian options at all meals. Gator Dining Services has switched over most of its disposable service items to biodegradable and reduced-waste options. All convenience stores on campus offer natural and organic groceries and snacks. GDS offers fair trade certified coffee throughout campus, cage-free eggs in dining halls, and seafood recommended by Monterey Bay Aquarium's Seafood Watch program. In addition to offering sustainable food options, Gator Dining educates students through nutritional kiosks in the dining halls, and by labeling local and sustainable food choices.

Gator Dining Services is also becoming a more sustainable operation through efforts focused on conservation and waste reduction. Currently, GDS recycles more than 250 tons of cardboard and paper annually, collects waste cooking oil for biodiesel production on campus, and distributes used coffee grounds to

campus gardens and the community for reuse in farming. GDS has also transitioned to using eco-friendly cleaning supplies at all locations, purchased two flex-fuel vehicles for catering, and implemented an Energy Star procurement policy for all new dining appliances. (See also Purchasing)

Recent Accomplishments

DINING SUSTAINABILITY COORDINATOR: GDS hired a Sustainability Coordinator who works to oversee sustainable food purchasing and operations. This person also serves as a liaison between key individuals, groups, and departments on campus, and in the community, to work on collaborative sustainability initiatives.

CAMPUS KITCHENS PROJECT: Through Campus Kitchens, our dining halls donate un-served food from campus to people in the community who need nourishing meals. The student-run program "recycles" food from the cafeterias; turning donations into nourishing meals, and delivers those meals (along with a friendly visit) to those who need it most in the community.



Chef-style competition at the Fresh Food Company, challenging local chefs to prepare a meal featuring local and regional ingredients. And, in 2008, on Earth Day, the local food cook-off was held again, this time featuring Gator Dining chefs on the competing teams. Student volunteers interacted with customers asking them eco-trivia questions for sustainable prizes; the event also featured a campus and community tabling fair.

UF was named one of the Top 10 Best Vegetarian-Friendly Colleges in the United States by People for the Ethical Treatment of Animals (PETA) in 2006 and 2007.

LOCAL AND REGIONAL FOOD EVENTS: In 2006, UF and GDS hosted a local/regional food fair with a majority of menu items purchased locally or regionally. In 2007, UF and GDS hosted an Iron

VEGETARIAN OPTIONS: UF was named one of the Top 10 Best Vegetarian-Friendly Colleges in the United States by People for the Ethical Treatment of Animals (PETA) in 2006 and 2007.



EDUCATION: In 2006, UF launched an undergraduate degree track in sustainable and organic agriculture in the Horticultural Sciences Department, making it one of the first U.S. institutions to

offer this major. UF is one of three land grant institutions to offer a major in organic and sustainable agriculture.

Benchmark Programs

Stanford University hosts an organic farmers' market every week, serves some organic produce in its residential dining halls, does business with local farmers, and serves some produce from their own organic farm on campus.

Yale's Sustainable Food Project's premise is that their food choices have an ethical and ecological impact, and that the best tasting food is local, seasonal, and sustainable. Each college now a fully sustainable meal at Sunday brunches, Thursday lunches, and Wednesday and Thursday dinners; a sustainable entrée and side at every lunch and dinner; and organic milk, coffee, yogurt, tea, bananas, granola, and tomato sauce at every meal. Yale has developed sustainability guidelines for fruits, vegetables, meat and poultry. They aim for each of the 1.8 million meals Yale's dining halls serve each year to feature entirely local, seasonal, and sustainable food. The Sustain-

able Food Project is an integral part of the academic experience at Yale. Since its founding, there has been a proliferation of classes related to food and agriculture at Yale.

Framing the Vision

In framing the vision for sustainability in Agriculture, participants envisioned UF offering a full range of dining choices, with equally convenient and attractive sustainable options. UF would work in complete cooperation with our corporate food service partners. Our partner brands would lead the way in their national efforts to integrate sustainability into operations and service, just as UF would lead the way among universities. All stakeholders, including farmers and community organizations, would be involved and feel represented in campus decision making.

UF would recognize our responsibility as a university to educate students, faculty, staff, and the community on sustainable agriculture and healthy living. The campus would function as a living laboratory to develop, demonstrate, and teach best practices. Individuals would learn from institutional commitments and feel empowered to implement changes in their own lives.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

COOPERATION WITH CORPORATE

PARTNERS: All corporate partners would share in our mission and goals for sustainability at UF. Our dining services partner would continue to advance

sustainability practices both on campus and nationally, and work collaboratively within the campus community.

MODEL FOR OTHER CAMPUSES: Other universities and colleges would benchmark sustainability metrics for agriculture and campus dining against UF's performance and accomplishments.

LIVING LABORATORY: UF research and dining services would be part of the campus living laboratory, developing best practices and providing educational opportunities. Dining services would demonstrate sustainable business models on campus and illustrate sustainability in action within a large corporation. The dining facilities on campus would act as change agents, educating the UF community about sustainable dietary decisions. UF/IFAS would continue to work to develop research and extension programs to support and demonstrate the implementation of sustainable agriculture in our state.

COMPREHENSIVE ASSESSMENT SYSTEMS:

UF would develop and use transparent assessment systems and metrics to measure the effects of our dining supply chain, products, energy, waste, employee retention and wellbeing, health and nutrition. The operational goals of dining would be aligned with UF's sustainability goals, including Zero Waste by 2015 and Carbon Neutrality by 2025.

EXAMPLE FOR THE COMMUNITY: All food served on campus would be sustainably produced, with a preference for local and regional sources. We would create and strengthen local, regional, and national



markets for sustainable products through our purchasing decisions. The university would lead by example and drive change in the local business community by creating a new consumer class.

EDUCATION: Education on campus and through IFAS Extension would create a demand for sustainable agricultural products and responsible business in the surrounding area. Students would learn lessons on campus and use the three E's (environment, economy, and equity) as a framework to make food decisions throughout their lives.

CRADLE-TO-CRADLE SYSTEMS: Dining Services would use cradle-to-cradle systems and processes, considering products'

sources, use, and eventual recycling, in conjunction with the rest of campus. The life cycle of products would be taken into account prior to their purchase, for minimal negative impact. (See also Purchasing)

ADAPTIVE MANAGEMENT LOOP: Students, staff, faculty, administration, and corporate partners would regularly communicate with one another and utilize an adaptive management loop.

Participants:

Kathy Caccida, Aramark

Jeremy Cynkar, O'Connell Center

Lionel Dubay, Business Services Division

Norbert Dunkel, Housing

Steven Guenther, Aramark

Michael Leone, Aramark

Susanne Lewis, Gator Dining Services

Jill Rodriguez, Gator Dining Services

Mike Schelke, Aramark

Robin Snyder, Agricultural and Biological Engineering

Christopher Stemen, Aramark

Mickie Swisher, Family, Youth and Community Sciences-IFAS,, Sustainability Committee representative

Ann Wilkie, Agricultural and Biological Engineering

Bill Zemba, Gator Dining Services





BUILT ENVIRONMENT

Description of Importance and Reason for Inclusion

In dramatic contrast to its opening in 1906 with two unfinished buildings and 102 students, the University of Florida entered the 21st century with a population of nearly 70,000 students, faculty and support personnel occupying over 18 million square feet in 950 campus buildings.

day. At UF, buildings account for 80% of electricity consumption and 60% of greenhouse gas emissions. It is, however, possible to construct buildings with significantly smaller environmental impacts. Examples of buildings that incorporate more sustainable design and maintenance practices are becoming increasingly common. Buildings designed with the health and safety of their occupants and the environment in mind can produce

Guiding Principle

Construct and renovate the built environment to high standards of energy, water, and materials efficiency with minimum impacts on local ecosystems.

How Are We Doing?

MASTER PLAN: The campus master plan for 2005-2015, lays the groundwork for University of Florida facilities and land resources for the next seven years and beyond. For the 2005-2015 campus master plan, the university employed an inclusive and comprehensive approach to engaging the campus community, host community, and governmental agencies in the plan development process.

LEED: In 2001, the university adopted Leadership in Energy and Environmental Design (LEED) criteria for design and construction for all major new construction and renovation projects. The LEED building rating system was developed by the U.S. Green Building Council as a national standard for evaluating and certifying individual projects. Our commitment was renewed in January 2006, when UF pledged that all new campus construction and major renovation projects approved as of July 1, 2004 would meet a LEED-Silver equivalent certification standard. In 2007, UF initiated a LEED Campus Standards application for the whole main university campus and started the LEED Existing Building pilot program.

"GREEN" CLEANING: Sustainability and "green" cleaning has become a focus for UF's Building Services department, the custodial branch of the Physical Plant Division. In addition to cleaning prac-

Long-range campus planning is of vital importance for universities, where development choices can last for centuries. Successful long-range planning can work to preserve and enhance the character of a campus through thoughtful design and maintenance of public spaces, circulation patterns, natural amenities, and new and existing buildings.

Our buildings, in particular, play a significant role in our lives on campus. We work, study, and live in them every

their own energy, reuse their own water, provide healthy indoor air quality, and increase employee productivity.

Operations and maintenance of the built environment also significantly contribute to a building's impact. The use of low-toxicity paints, carpets, and furnishings, as well as "green" cleaning products, contributes to a healthier indoor environment for university employees and students, and lessens the negative effects on our ecosystems as well.





tices, the Building Services department also covers recycling, energy conservation, and other sustainability tips in its training. Building Services partners with the UF Sustainability Office and product vendors in the continuing conversion to “green.” They have been testing and implementing a number of ergonomically designed cleaning tools and environmentally safe cleaning products and supplies. (See also Health and Wellbeing)

Recent accomplishments

LEED COMMITMENT: UF’s Facilities Planning and Construction Department is the first in the state of Florida to require a LEED-accredited professional on staff to ensure LEED criteria are incorporated in design and construction on all major projects. The LEED accredited professional works with the project design teams to obtain the highest level of LEED certification for all projects, with a minimum goal of LEED Silver.

GETTING TO GOLD: Thus far, UF boasts eight LEED-certified buildings and two Gold-certified buildings. UF’s Rinker Hall was the first LEED Gold-certified building in the State of Florida. The latest building to be certified LEED Gold was Library West, a 177,000 square foot building and renovation project that was completed in 2006. In addition, there have been 6 buildings submitted for certification and 9 registered buildings on the UF campus.

LEED EB PORTFOLIO: Not only is the University of Florida implementing LEED in new construction, but we are also renovating existing buildings to LEED-certified standards. Thirty-two buildings across

campus are a part of the UF Portfolio Pilot Program for LEED Existing Buildings (EB), the first such portfolio on a college campus.

NATIONAL HISTORIC DISTRICT: The University of Florida Historic District comprises nineteen academic buildings and dormitories all constructed before 1939, representing nearly 70 years of embodied carbon. The Collegiate Gothic style of these buildings, rooted in the ideal of medieval English universities, was meant to suggest ancient traditions of learning and the permanence of the institution. In 1989 the central campus area was placed on the National Register, adding eight more buildings to the register listing. Landscaping for the campus began in 1905 with a row of oak trees and a sensitive use of live oak, dogwood and holly helped integrate the various buildings into a unified visual scheme. When the

central green of the campus was dedicated as the Plaza of the Americas in the 1930s, the university was noted for its towering pines, stately oaks, palms and shrubs of all types.

STUDENT AND STAFF EDUCATION: The Facilities Planning and Construction (FPC) Department has offered numerous training opportunities in sustainable design and LEED construction through case studies and tours. In addition, the FPC website allows users to monitor

the performance of the LEED buildings on campus and see first-hand how they are performing. Courses in sustainable design principles are also offered at UF, especially in the College of Design, Construction and Planning, and Civil and Environmental Engineering. The Powell Center for Construction and Environment hosts the annual international conference, Rethinking Sustainable Construction.

SUSTAINABILITY MAJOR: The College of Design, Construction and Planning has developed an interdisciplinary undergraduate Bachelor of Science in Sustainability and the Built Environment, intended to train UF students interested in sustainability and the built environment through a series of interdisciplinary and disciplinary lectures, studios, seminars and internships. Courses will be offered in conjunction with the college’s

At UF, buildings account for 80% of electricity consumption and 60% of greenhouse gas emissions.

disciplinary units: architecture, building construction, interior design, landscape architecture, and urban and regional planning. UF sophomores will be eligible to apply for the program. Specific additional courses from across campus are recommended to the students as electives, on an individual basis. (See also Teaching and Research)

Benchmark Programs

Harvard’s new four-building, 589,000 square-foot Allston Science Complex is

designed to meet LEED Gold standards and produce only half the greenhouse gas emissions of a typical laboratory building. The voluntary agreement with Harvard is the first in the nation to legally bind a developer to reducing greenhouse gases beyond the current standards.

The University of Colorado at Boulder has mandated that all new buildings be certified LEED Gold or higher.

Vassar College and Cornell University have implemented a variety of indoor air quality measures including upgrading HVAC standards in new and existing buildings, performing regular maintenance testing for contaminants, and purchasing low-volatile organic compound (VOC) building materials, paints and cleaning products. Cornell also has an Integrated Pest Management Program to reduce the volume of pesticides used in buildings.

Framing the Vision

In framing the vision for sustainability in the Built Environment, participants envisioned a campus with buildings that would be designed to last 100 years, and to provide a healthy, productive environment for the university community, with a minimal impact on the environment. As we build on our historic traditions, our vision would include constructing buildings that would stand the test of time to join existing historic buildings on campus.

The full impacts of design and material selection would be considered in the decision-making process. A life cycle analysis, from raw materials through

production and disposal, would be considered in planning and purchasing phases. The university would continue to follow the campus Master Plan, which encompasses many facets of campus planning including physical development, environmental preservation and management, infrastructure, design standards, intergovernmental coordination and neighborhood/community partnerships. Since planning is an ongoing and collaborative undertaking, a wide array of committees, task teams, and open forums would be employed to bring together stakeholders and develop consensus about the future of the University of Florida campus community.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

ESTABLISH UNIFIED POLICIES: Establish clear, consistent policies concerning facilities construction and maintenance, with support from the administration. Establish accountability for building performance and maintenance from design through operation. Provide guidelines and training for project managers, vendors and contractors to operate sustainably.

IMPLEMENT LIFE CYCLE ANALYSIS POLICIES: Establish policies to analyze the full life-cycle costs/benefits of our energy, water, lighting, landscaping, ventilation, material use, and transit proximity to help guide the decisions we make about the development of our campus. Incorporate life-cycle cost analysis into the budgeting, design, engineering, and approval process of all new buildings and major renovations. (See also Procurement)





DESIGN SMART BUILDINGS: Construct and renovate buildings to adjust to occupancy needs. All campus buildings would meet high performance criteria and include flexible use areas. The value of resource and energy efficiencies would be preserved through the design-to-build process. Buildings would maximize LEED energy points, and all projects would be designed to meet LEED Platinum standards. UF would strive to improve the sustainability of each new building.

CREATE FLEXIBLE BUILDING SPACE: Design buildings with flexible space for shared use. Optimize usable square footage in the design stage of new buildings, before they are built. Implement and support telecommuting and distance learning to conserve building space and resources. (See also Health & Wellbeing and Transportation)

BUILD HEALTHY, USER-FRIENDLY BUILDINGS: Indoor environments would be designed to be healthy, beautiful, and user friendly for community wellbeing and productivity. Campus design elements would be uniform for aesthetics and ease-of-use. Collaborative groups would meet to make building decisions to best fit user needs. (See also Health & Wellbeing)

EMPLOY CLOSED LOOP SYSTEMS: Incorporate alternative, distributed energy technology wherever possible, including waste-to-energy processes. Develop off-peak storage for utilities - thermal storage, chilled storage, hydrogen, etc. - to reduce peak load. (See also Energy Conservation and Climate Change)

ENCOURAGE PREVENTATIVE MAINTENANCE: Develop a proactive process to improve efficiency in existing buildings through ongoing maintenance of existing systems. Develop policies to identify, repair, and upgrade inefficient equipment that uses excess energy and/or water. Preventative maintenance would improve system reliability, decrease the cost of replacement equipment, and decrease system downtime. Employ accessible user feedback tools that help users and building maintenance staff to ensure buildings are working as efficiently as possible throughout their lifecycles.

RECYCLING AND REUSE OF CONSTRUCTION WASTE: Establish deconstruction and construction waste policies that mandate recycling, preferably through local re-use vendors. Negotiate lower costs to reuse/recycle materials than the cost to dispose at a landfill. (See also Waste)

RE-ALIGN UNIVERSITY DONATIONS: Encourage donors to fund operations and optimization of existing systems. Only construct new buildings when necessary. (See also Institutional Commitment)

Participants:

Babar Armaghani, Facilities Planning and Construction, Sustainability Committee representative
Harold Barrand, Physical Plant Division
Gene Brandner, Facilities Planning and Construction
Jennifer Gillett, Entomology- IFAS
Glenn Ketcham, Environmental Health and Safety
John Lawson, Physical Plant Division, Energy Department
John Madey, Computer and Networking Services
Amanda Moore, Human Resource Services
Jeffrey Peet, Progress Energy
Lynda Reinhart, O'Connell Center
Mark van Soestbergen, ICBE



WASTE REDUCTION



Description of importance and reason for inclusion

As our global population grows, we are faced with the reality that many of the resources on our planet are finite. Institutions moving towards zero waste by reducing, reusing, recycling, and composting help to mitigate the need to extract virgin materials and resources from the earth. It generally takes less energy to make a product with recycled material than with virgin resources. Reducing waste generation also reduces the flow of waste to incinerators and landfills, thereby reducing greenhouse gas emissions and minimizing contamination of

air and groundwater supplies. Reducing waste is largely a matter of reducing consumption, procuring durable products, and repurposing useful items.

Electronics and appliances are the fastest growing portion of the waste stream today. The EPA predicts that in the next five years, approximately 250 million computers will become obsolete. Electronic waste, in particular, contains toxic components, such as lead or mercury that can contaminate soil and groundwater, and have detrimental human health impacts if handled improperly. The EPA has further determined that computers

and other electronic equipment contain heavy metals in their circuit boards and batteries, which also can pose a hazard to the environment. This hazardous waste must be disposed of properly.

Guiding Principle

Reduce waste streams and promote closed-cycle materials practices.

How are we doing?

WASTE MANAGEMENT: The university Physical Plant Department's (PPD) Solid Waste Management Office manages the collection and disposal of all solid waste generated through university operations, including medical waste. It also manages the university's recycling program and provides collection and recycling services for paper, corrugated cardboard containers, beverage containers, scrap metal, pallets, masonry, yard waste and other widely used materials. Environmental regulations and recycling opportunities preclude us from carelessly disposing of waste. Environmentally hazardous materials, bio-medical waste, construction materials, yard waste and many other materials require special handling and separate disposal channels. Members of UF's Environmental Health & Safety department (EH&S) ensure compliance with federal and state disposal regulations. They identify and evaluate vendors that can handle disposal and/or recycling, and maintain hazardous disposal records.

UF, through waste reduction and recycling initiatives, achieves a waste recovery rate of nearly 35%. Using a mixture of in-house and contracted resources, the university recycles over 6,500 tons of material annually. Additionally, UF strives

to recycle at least 60% of its deconstruction debris. Throughout campus, divisions are doing their part to divert waste streams. For example, all yard waste generated on campus is taken to a local mulching/composting facility, all wastewater treatment plant sludge is applied

UF administers a program to sell or de-manufacture the monitors, CPUs and electronic waste that are no longer useful to the university. Recyclers/de-manufacturers or purchasers under UF contract must meet strict standards for proper use or recycling of each unit. EH&S audits

celebrate the natural decomposition of the waste and produce a useful by-product: energy rich landfill gas. The gas is collected, fed to turbines, and generates “green” energy without contributing to the increase of global greenhouse gases.

Through waste reduction and recycling initiatives, UF achieves a waste recovery rate of nearly 35%.

locally as a soil amendment, and Gator Dining Services collects used cooking oil for conversion to biodiesel. To reduce waste further, EH&S hosts a chemical exchange program. This opportunity allows researchers to share unwanted, unopened chemicals with other labs, free of charge. Even the used animal bedding from UF’s veterinary school is being decontaminated and composted for commercial forestry.

ELECTRONIC WASTE: To assure that electronic equipment with the potential to create environmental contamination is properly managed, UF established an Electronics Reuse/Recycling Policy. The accompanying step-by-step guide for disposal and recycling are administered by UF’s Asset Management department. Surplus Property staff working with the campus community play an important role in this mission by ensuring that electronic equipment is re-used and/or properly recycled. Through this effort, the university reduces the unnecessary purchase of electronic equipment and encourages the re-use of available equipment suitable for other purposes.

university-contracted recycling facilities to ensure that health and safety conditions meet their standards. Housing: University Housing provides recycling in the residence halls on campus. Housing also hosts a move-out program that works with local area charities to collect and distribute re-usable furniture and supplies. The goals of the program are three-fold: to assist local charitable agencies, to reduce the amount of usable items deposited in the local landfill during this period, and to support residents moving from residence halls.

LANDFILL: The University of Florida operates a full-scale 28-acre bio-reactor in Alachua County in partnership with Gainesville Regional Utility and Progress Energy. The internal conditions of the landfill are closely controlled to ac-

Recent Accomplishments

RECYCLING BINS: The UF Office of Sustainability and PPD are working together to implement comprehensive recycling programs for plastic, glass and aluminum across campus. In 2008-2009, indoor co-mingled can and bottle recycling bins are being placed in faculty, staff, and graduate student work areas. Pilots are also underway for new outdoor recycling bins, including outdoor paper collection, and indoor bins for student and public areas.

GAMEDAY RECYCLING: UF’s TailGator Game Day Recycling Program was launched in 2006. The Office of Sustainability, Solid Waste Management, PPD Grounds staff, and student groups work together to collect home-game recyclables. In 2007, this volunteer-driven effort



diverted over 26,500 lbs of recyclable material from the landfill.

RECYCLEMANIA: UF participates in RecycleMania - a friendly competition among college and university recycling programs in the United States. The competition promotes a fun, proactive approach to waste reduction. Over a 10-week period, campuses compete in different contests to see which institution can collect the largest amount of recyclables per capita, the largest amount of total recyclables, the least amount of trash per capita, or achieve the highest recycling rate. The main goal of this event is to increase student awareness of campus recycling and waste minimization goals. All participating schools are required to report measurements on a weekly basis in pounds. This year, UF achieved 11.8 lbs of recyclables per person over the 10-week period, and finished 10th out of 200 schools in the total amount of recyclables collected with 770,988 lbs.

PURCHASING DIRECTIVE: UF's sustainable purchasing directive supports campus sustainability and provides guidelines, information, and resources in procuring products that will minimize negative impacts on society and the environment to the greatest extent practicable. The directive suggests best practices and strategies for waste reduction through purchasing, leasing, renting, as well as product take-back strategies. (See also Purchasing

Benchmark Programs

UF is on par with many institutional leaders for waste diversion. The University of Oregon consistently diverts over 40% of its waste stream, and the University of Massachusetts, Amherst exceeds 50% waste diversion.

Framing the Vision

UF has set a visionary goal of Zero Waste by 2015. In framing the vision for sustainability in Waste Reduction, participants envisioned all users, auxiliary units, and business partners striving for Zero Waste. UF would sort all waste for the most productive re-use, recycling or con-



Penn State hosts a number of special event recycling projects, including a Trash-to-Treasure collection and sale, which last year diverted 75 tons of waste from the landfill and raised \$50,000 for the United Way. Penn State's Organic Materials Processing and Education Center saves over 1.6 tons of waste daily from the landfill and closes the waste loop, turning waste into free compost used to enrich the campus grounds.

version to energy (i.e., pyrolytic conversion or biodigestion) - transporting the absolute minimum amount of waste to the landfill. The full life cycle of products would be considered before purchasing and durable goods would be preferable to disposable options. The campus community would proactively consider eventual product disposal when making everyday purchasing decisions.



Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

MANAGING WASTE STREAMS: UF would sort all waste for the most productive re-use, recycling or conversion to energy (i.e., pyrolytic conversion or biodigestion).

- **Construction and Deconstruction Waste:** Our first priority would be to reduce and eliminate waste, followed by recycling materials on campus, and finally recycling materials off campus. We would build a network for re-use and recycling of building materials to minimize waste.
- **Biomedical Waste:** Our bio-medical waste presents a unique challenge. We would explore the possibility of pyrolytic conversion of waste into energy, but may be limited by regulations constraining medical waste disposal.



- **Hazardous Waste:** Compliance with federal and state disposal regulations for hazardous waste is managed by Environmental Health & Safety. The department identifies and evaluates vendors that can handle disposal and/or recycling, and maintain hazardous

UF has set a visionary goal of Zero Waste by 2015.

disposal records. In this vision, the UF community would be well informed and would collect and dispose of hazardous and electronic waste appropriately in their work and home life.

- **Organic Waste:** The campus would gather food waste, vegetation, and bio-solids from wastewater treatment for conversion into bio-gas in an anaerobic digester.

EDUCATION AND RESEARCH: We would demonstrate research innovations whenever possible. Campus would act as a living laboratory for sustainability, allowing students to learn from and develop waste diversion strategies for campus.

Participants:

Justin Brady, O'Connell Center

Bill Coughlin, Environmental Health & Safety

Charles Kibert, Rinker School of Building Construction

Dale Morris, Physical Plant Division, Recycling and Solid Waste Coordinator

Jillian Peters, Student Senate Environmental Affairs Cabinet chair

Bill Properzio, Environmental Health & Safety

John Schert, Hinkley Center for Solid Hazardous Waste

Ann Wilkie, Agricultural and Biological Engineering



PROCUREMENT

Description of importance and reason for inclusion

Colleges and universities purchase a variety of materials and goods that all have environmental, social, and economic impacts. As individual entities, and as an aggregate collection, universities purchase great volumes of paper, computers, printers, copiers, office supplies, research supplies, cleaning supplies, building materials, furniture, paint, carpet, food and more.

Labor inputs, pollution, waste generation, energy consumption, extraction of natural resources, and impacts on users' health and environment are all impacts of purchasing decisions. An analysis of

University of Florida can influence and drive the type, availability and price of products offered in the market. Through our purchasing practices, we can educate our students, improve human health conditions on campus, and lead the way as stewards of the earth's resources.

Guiding Principle

Subscribe to procurement policies and practices that support environmentally and socially responsible products and services.

How are we doing?

Purchasing and Disbursement Services has made great strides in the past few years to ensure that the vendors contracted by the university are aligned with

information, and resources in procuring products that will minimize negative impacts on society and the environment to the greatest extent practicable. The directive includes responsibilities of departments for educating purchasers within their department and best practices and strategies for socially and environmentally preferable purchasing on campus.

UNIQUE PARTNERSHIPS: UF leveraged its purchasing power to negotiate a new relationship between Mister Paper, a local minority-owned office supply company, and Office Depot. This relationship creates the best value for the university by matching competitive pricing with a very high level of customer service. In addition, the Purchasing department has created a green designation on the list of commonly purchased office supplies to help customers make informed choices.

SUSTAINABLE PRODUCTS TRADE SHOW:

This year, the Purchasing department hosted the third annual Sustainable Products Trade Show. It has grown each year in both vendors and participants. The goal of the show is to educate students, staff and faculty about sustainable products purchased by UF, and options for green products for personal use.

VENDOR RELATIONS: The Purchasing Department has incorporated sustainability-related questions into large contract vendor negotiations. They are also requesting that vendors report sustainable product data/certifications, such as Energy Star, Green Seal certification, EPEAT, and FSC.

GREEN CLEANING: Sustainability and "green cleaning" has become a focus for the UF Building Services department. They test and implement a number of er-

Purchasing and Disbursement Services has made great strides in the past few years to ensure that the vendors contracted by the university are aligned with UF's sustainability goals.

total costs, including energy consumption, parts replacement, and disposal, is critical to determining the best value in procurement decisions.

Purchasing on the UF campus is highly decentralized. Thousands of people are involved in low-value purchasing (up to \$1000 per item) throughout the campus. Over 1,600 people make requisitions, and there are over 5,000 active Purchasing Cards (Pcards) in the hands of campus purchasers. High-value purchasing is handled by campus buyers in the central Purchasing department. As an institution with large purchasing requirements, the

UF's sustainability goals. In 2003 the department drafted purchasing guidelines put in place to lessen UF's environmental impact by directing purchasers to environmentally preferable products whenever they performed satisfactorily and were available at a reasonable price. These guidelines were enhanced and revised in 2007 as the Sustainable Purchasing Directive.

Recent accomplishments

SUSTAINABLE PURCHASING DIRECTIVE:

The purpose of this directive is to support campus sustainability at the University of Florida and to provide guidelines,

gonomically designed cleaning tools and environmentally safe cleaning products and supplies, including: recycled content paper products, Green Seal certified chemicals, and Green Label vacuum cleaners. (See also Health & Wellbeing) **Fleet Purchasing/Biofuels:** The university has committed to purchasing high fuel efficiency vehicles; these vehicles may be hybrid or alternative fuel vehicles, when possible. The purchasing department maintains a listing of available vehicles to assist departments with choosing a vehicle for purchase. (See also Transportation)

WORKERS RIGHTS: Through the Fair Labor Association, the UF Athletic Association and UF's bookstore partner, Follett, work with factories to ensure that no child or sweatshop labor is used to manufacture merchandise bearing the university's logos. In addition, they review reports from human rights organizations, labor groups, and other organizations and governments that provide data on this issue.

Benchmark Programs

Indiana University implemented a selective purchasing policy that prohibits buying products derived from old-growth forests.

The University of California at Santa Barbara (UCSB) has adopted a recycling program and policy which includes the purchasing of recycled paper. UCSB's policy requires that the university purchase paper products of the highest recycled content available within five percent of the price of non-recycled paper.

Framing the Vision

In framing the vision for sustainability in

Procurement, participants envisioned all employees integrating analyses of social and environmental value, including life cycle costing, into purchasing decisions. Sustainable products and services would be given preference in evaluations of the best value for the university.

UF departments would be accountable for their expenditures, considering UF's purchases with the same care and attention as their own purchases and respecting UF's money as they would their own. Purchases would only be made when absolutely necessary; options such as renting, borrowing, or sharing would also be examined. The university would leverage our purchasing power to motivate vendors to act more sustainably. Our success would serve as an inspiration to other businesses and institutions.

Realizing the Vision

In order to reach this vision, participants identified the following opportunities.

SUSTAINABLE OPTIONS FOR ALL PURCHASES:

Develop a web-based, user-friendly interface to identify sustainable options for purchasing decisions.

FULL-COST ACCOUNTING: Integrate analysis of total cost of ownership and full-cost accounting into purchasing decisions.

EDUCATE THE CAMPUS COMMUNITY: Develop materials to support campus-wide and department level understanding and compliance. Include information about the benefits of sustainable purchasing and the progress being made on campus. Set an example for students, faculty, and staff so they might make sustainable purchasing decisions on campus and in their personal lives.

ENCOURAGE TAKE-BACK: Negotiate "extended producer responsibility" clauses with contract vendors, holding them accountable for the full lifecycle of the products they manufacture.

REPORTING: Develop "report cards" to track sustainable purchasing on campus and the performance of campus suppliers/vendors.

INCLUDE SUSTAINABILITY GOALS: Those responsible for purchasing would be evaluated on their ability to find innovative ways to reduce waste through purchasing and to incorporate full cost accounting into purchasing decisions. Sustainable purchasing training would be offered to all purchasers.

Participants:

Eugene Brandner, Facilities Planning and Construction

Kimberly Browne, College of Liberal Arts and Sciences

Kathy Carnes, College of Nursing

Bill Coughlin, Environmental Health & Safety

Lisa Deal, Purchasing, Sustainability Committee representative

Greg DuBois, Finance and Accounting

Miriam Fletcher, Dentistry

Linda Hon, Journalism and Communications

Bob Johnson, Chemistry

Lucida Lavelli, Dean, College of Fine Arts

Jim Lennon, Chemistry

Victoria Masters, College of Fine Arts

Mike McKee, Finance and Accounting

Renee Musson, O'Connell Center

David Pederson, Student Government

John Plummer, Levin College of Law

Faylene Welcome, Small and Minority Business Affairs



INVESTMENT

Description of importance and reason for inclusion

The primary goal of university investment advisors is optimizing financial return on investment. Some universities are also including sustainability-related priorities in investment decisions in an effort to keep investments in alignment with stated university values. As investors, universities also have an opportunity to actively consider, as well as vote on, sustainability-related shareholder resolutions. Forming a shareholder responsibility committee to advise the board of trustees allows universities to include students, faculty, and alumni in research and discussion of important corporate policies on sustainability. In addition, such committees offer exceptional educational opportunities at the intersection of policy, business, and sustainability.

Institutions may investigate and invest in renewable energy funds, community development financial institutions, or similar investment vehicles. Such portfolio diversification at the local level strengthens communities that surround universities and contributes to their sustainability.

In accordance with the academic tradition of fostering a free flow of information, universities are being encouraged to apply similar openness to endowment investments, including shareholder proxy voting records. Access to participation in endowment investment policies can foster constructive dialogue about opportunities for clean energy investment, as well as shareholder voting priorities.



Guiding Principle

Explore and develop opportunities to engage in socially and environmentally responsible investing.

How are we doing?

The University of Florida board of trustees adopted the following policy on September 14, 2007:

Trustees of the University of Florida have a primary responsibility to ensure that investing and managing endowment securities maximizes the financial return on those resources, while taking into account the amount of risk appropriate for university investment policy. The Board of Trustees utilizes UFICO as its investment arm and reviews performance quarterly and annually.

When the board adjudges the policies or practices of a corporation in which the

university invests could cause substantial social injury, as responsible and ethical investors, it will give independent weight to this factor in determining investment responsibility policies.

The Sustainable Endowments Institute issues an annual College Sustainability Report Card, which is a review of campus and endowment policies at leading institutions. The Report Card assesses the 200 public and private universities with the largest endowments, ranging from \$230 million to nearly \$35 billion.

While schools are earning higher marks for green initiatives in campus operations, a majority of the wealthiest institutions continue to lag in applying sustainability practices to their endowment investments. The categories with the lowest overall grades were Shareholder Engagement with 66% “Fs” and Endowment Transparency with 58% “Fs.”

While UF earned “As” and “Bs” in the categories of Administration, Climate Change & Energy, Food & Recycling, Green Building, and Transportation, it earned failing marks in the Shareholder Engagement and Endowment Transparency categories.

Benchmark Programs

Dartmouth College’s Advisory Committee on Investor Responsibility makes its annual report available to the college community and any interested outside party on the college’s website. Any Dartmouth community member can view a hard-copy listing of all publicly traded shares that the college directly owns by visiting the college’s investment office.

Duke University is currently invested in renewable energy and community development loan funds. In 2006, the university announced a \$5 million investment in the Latino Community Credit Union based in Durham, North Carolina. This investment is in addition to an initial investment of \$400,000, which made Duke one of the credit union’s first and largest investors.

Washington University in St. Louis is invested with managers whose mandates include renewable energy, and has also invested in and loaned funds to others in order to invest in real estate for neighborhood revitalization in several local areas.

Students, faculty, and alumni serve on Columbia University’s Advisory Committee on Socially Responsible Investing, which makes proxy voting recommendations to the board. The committee also hosts an annual town hall meeting at

which the school community can voice its opinion on issues facing the committee or on issues that the committee should address.

Harvard University has two committees to assist the university in addressing its ethical responsibilities as a large institutional investor: the Corporation Committee on Shareholder Responsibility (CCSR) and the Advisory Committee on Shareholder Responsibility (ACSR), which includes faculty, students, and alumni. The CCSR publishes an annual report that provides details on the work of the two committees.

Framing the Vision

The University of Florida board of trustees believes that the policy it adopted in September 2007 provides the necessary framework to invest in a socially responsible manner. Any consideration of an investment advisory committee or other investment-related priorities would be at the sole discretion of the board.

Access to participation in endowment investment policies can foster constructive dialogue about opportunities for clean energy investment, as well as shareholder voting priorities.

Realizing the Vision

The board of trustees has expressed a willingness to look into the Florida law regarding the state’s pension program. That law, the Protecting Florida’s Investments Act, requires the State board of Administration (SBA), the State of

Florida’s investment arm, to establish a list of prohibited investments for the state’s pension fund, based on companies doing certain types of business in certain locations. The SBA has identified 57 companies for inclusion in its list of



prohibited investments. The University of Florida is reviewing the SBA’s list of prohibited investments to use as a guideline

as it considers direct investments. The university will also monitor and consider any future changes that the SBA may make to the list of prohibited investments.



TRANSPORTATION

Description of Importance and Reason for Inclusion

Conventional modes of transportation contribute to traffic congestion, deterioration of roadways, and local air pollution. In response, strategies have been developed to promote more efficient modes of transportation. These strategies, referred to as transportation demand management (TDM) initiatives, can include improved transportation options, incentive programs for using alternative

community and environment. Single occupancy vehicle (SOV) trips can be thought of as particularly costly due to their proportionately higher per capita emissions, as well as the related infrastructure costs, traffic, and parking demand that they generate.

Fossil-based fuels used by commuters, and for campus operations, are declining resources and their combustion impacts the quality of the air we breathe.

How Are We Doing?

ALTERNATIVES: UF Transportation and Parking Services and the UF Office of Sustainability provide details on alternative transportation options through an interactive website and through brochures and events.

BICYCLING: The University Police Department offers bicycle registration in order to aid recovery in the case of bicycle theft. Student Government offers free bike repair outside the Reitz Union. Regional Transit System (RTS) buses are equipped with bike racks, allowing riders to bring bicycles on board for the transition from transit to final destination.

TRANSIT: Since 1997, UF has contributed increasing funding to RTS through the implementation of a student transportation fee. Funding increases have created growth in service and ridership for students and the general public, allowing RTS to serve more riders than any other transit system in Florida. Last year, RTS provided nearly 9 million rides. This successful partnership helped the university earn recognition from the US Environmental Protection Agency as one of the nation's "Best Workplaces for Commuters." UF support allows for universal pre-paid access to bus rides for students, faculty and staff, 7 days a week, throughout the Gainesville area. RTS also offers extended bus services such as the "Gator Aider" for football games, and the "Later Gator" on weekend nights.

transportation, strategic placement and regulation of parking, and other policy and institutional reforms.

The modal split is the most fundamental measure for tracking the performance of a transportation system. Modal split refers to the proportion of transportation modes used by commuters traveling to and from campus. Each mode of transportation carries different costs for the user, as well as for the surrounding

Increasing costs of fossil fuels and growing concern over the effects of climate change are driving the transition to alternative fuels. The ongoing challenge for campus operations is minimizing fuel consumption without compromising necessary services.

Guiding Principle

Develop incentives and infrastructure for walking, cycling, ridesharing, and public transportation.

Recent Accomplishments

ALTERNATIVE TRANSPORTATION

EDUCATION: An extensive alternative transportation campaign is planned for



the 2008-2009 academic year. Materials and programs will educate students, faculty, and staff of the transportation options available, and will encourage university community members to reduce use of automobiles, and encourage efficient use of transportation.

BICYCLE SAFETY EDUCATION: UF's Department of Health and Human Performance is the new home of Florida Department of Transportation Traffic and Bicycle Safety Education Program (previously housed in Urban and Regional Planning). Under a grant from the Florida Department of Transportation Safety Office, this project promotes safe walking and bicycling in educational settings in Gainesville and throughout the State of Florida. UF also offers Bicycle Traffic Safety School that allows bicyclists who violate traffic laws on campus the opportunity to attend the course in lieu of paying traffic fines. This program is the first in its kind in the state and it represents the university's commitment to recognizing bicycles as a serious means of transportation.

CARPOOL/GREENRIDE: For students and employees who do not live within walking or biking distance to campus, and don't live in an area served by RTS, UF offer a comprehensive carpool program. The carpool program encourages eligible University of Florida and Shands faculty and staff members to share the ride to and from campus. Registered carpool members purchase their own annual carpool decals and enjoy a guaranteed number of parking spaces across campus. UF also offers GreenRide, a rideshare matching service.

Commuters can search for ridesharing partners among the other employees and students registered with GreenRide who live near them and have similar schedules and lifestyle preferences.

ZIPCAR: For members of the UF community who need a vehicle for errands or trips, UF has partnered with Zipcar, a national car-sharing program. Zipcar offers 8 low-emission vehicles (within their class) to choose from on campus, including 3 hybrids. Currently, more than 300 members are taking advantage of this service. The hourly rental fee includes gas, insurance, maintenance, a reserved parking space, 180 free miles per trip, roadside assistance, and 24-hour customer service.

UF CAMPUS CAB: PPD provides point-to-point transportation for UF faculty and staff, on the main campus, east campus, and some UF facilities in Alachua

The carpool program encourages eligible University of Florida and Shands faculty and staff members to share the ride to and from campus.

County. The taxi service is available at no cost to users during posted hours of university operation.

FLEET MANAGEMENT STUDIES: UF is conducting studies to determine the "right sized" fleet for campus. The goal is to reduce the number of state vehicles on campus, many of which are parked for extended periods of time. By reducing individual department needs, charging

a fee to departments for the privilege of having a vehicle on campus, and increasing the use of Zipcar and other rental/carsharing programs, we can reduce the number of vehicles on campus.

FLEET PURCHASING/BIOFUELS: The university has committed to purchasing the highest fuel efficiency vehicles available, which may be hybrid or alternative fuel vehicles, whenever possible. The purchasing department maintains a listing of available vehicles to assist departments with choosing a vehicle for purchase. UF's fleet currently includes 8 electric cars, 18 hybrids, and 83 flex-fuel vehicles. Additionally, the university stocks biodiesel and E85 ethanol for use in its fleet vehicles. (See also Procurement

Benchmark Programs

In response to a 23% increase in fuel usage between 1989 and 1998, Michigan State University now has over 400

vehicles operating on alternative fuels and a reuse system for various fluids and components.

The University of Vermont is collecting data on the number of trip-miles made on alternative fuels and has a long-term goal of converting a large portion of its fleet to low or zero-emissions vehicles.



Framing the Vision

As the largest institutional member of the Gainesville community, the University of Florida has a responsibility to meet the transportation needs of our students, faculty, and staff, while maintaining the health of both the environment and our relationships with the broader community. The campus Master Plan supports continued coordination with RTS, increased walking and bicycling, and innovative parking and fleet management strategies. In framing the vision for sustainability in Transportation, participants envisioned that the Master Plan would be viewed as an active document that would be used regularly by campus leaders and UF staff in decision making and operations.

As a part of its educational mission, the university would show, by example, that sustainable transportation makes sense, on both personal and institutional

scales. Alternative transportation is one of the many areas that could be related to overall efficiency and budgeting goals. Infrastructure decisions would include considerations of return on investment, life cycle costing, and externalized costs to society.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

COMMUNITY ENGAGEMENT: Partner with community groups to offer alternative transportation resources and education.

ALTERNATIVES TO SINGLE OCCUPANCY VEHICLES:

Provide alternative transportation options for everyone coming to campus, including van pools and regional transit opportunities for those not currently served. Provide incentives for regular users of alternative transportation. Expand current car-sharing and

carpooling programs. Develop on and off-campus bike and pedestrian corridors, known as greenway systems, for bike-friendly campus access. Provide support facilities for faculty, students, and staff riding bicycles and other alternative modes of transportation to campus.

SAFETY LEADERSHIP: UF would lead the way for transportation safety regulations and would participate in writing state-wide rules and regulations.

AUTO-FREE CAMPUS CORE: Through partnership with RTS, and an ongoing transition to alternative transportation, UF would eliminate private cars on campus and achieve a car-free or car-minimized campus core, with exceptions for police, repairs, etc.

EFFICIENT CAMPUS CIRCULATOR: In addition, or in partnership with, RTS service, develop a reliable campus circulator or “People Mover” to transport people around campus more efficiently.

FOSSIL FUEL-FREE FLEET: Campus fleet vehicles would be run exclusively on renewable fuels and alternative tech-





nologies with maximum utilization of vehicles to limit the size of the fleet. Implement electric or human-powered bike taxis for mail delivery and courier deliveries around campus from central receiving points.

SUPPORT ELECTRIC: UF would install solar charging stations to charge electric vehicles without tapping into the electricity grid. (See also Energy Conservation and Climate Change)

TELECOMMUTING: Provide training for all managers on flexible scheduling and telecommuting for employees, including topics such as how to manage remotely. Allow employees flexibility to work from home to reduce commuting, when appropriate. (See also Equity)

Participants:

Ricardo Lopez, PhD candidate, College of Design, Construction, and Planning

Jeremy Cynkas, O'Connell Center

Lisa Deal, Purchasing

Linda Dixon, Facilities, Planning and Construction

Mackenzie Ezell, Student Senator and Student Sustainability Committee chair

Scott Fox, Transportation and Parking Services

Julie Frey, College of Design, Construction, and Planning

Ron Fuller, Transportation and Parking Services

Jeff Holcomb, UFPD



Erik Lewis, Facilities, Planning, and Construction

Nate Mitten, Graduate Student, President of UF American Solar Energy Society

Allan Preston, Physical Plant Division, Sustainability Committee representative

Jon Priest, Physical Plant Division, Motor Pool

Pratap Pullammanappallil, Agricultural and Biological Engineering

David Stopka, Recreation Sports

Mark van Soestbergen, ICBE



HEALTH AND WELLBEING

Description of Importance and Reason for Inclusion

The university is a living community, and the health and wellbeing of all its members is a fundamental component of the community's success, and even excellence. Among the most important responsibilities an institution has to its employees is to ensure equitable access to services and benefits, the prevention of accidents and injury at work, and to the active promotion of good health. Concern for employee wellbeing includes responsibilities to maintain healthy indoor environments and to increase employees' access to good nutrition, exercise, and overall wellbeing.

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Guiding Principle

Ensure a healthy working environment for faculty, students, and staff and work to ensure equitable access to healthcare on campus and within the broader community.

How Are We Doing?

The University of Florida seeks to provide a safe work environment for its employees, including consideration of training accessibility on ergonomic safety and monitoring of progress. The University of Florida also seeks to provide healthy indoor air for all members of the university community. Additionally, smoking is prohibited within 50 feet of campus buildings.

The university's commitment to LEED standards for new construction and renovations includes commitments to health and safety, and occupant comfort and health. Low-VOC finishes, furnishing, and maintenance products are all part of the commitment. (See also Built Environment)

The university has identified a growing number of "green" cleaning products that rival the effectiveness of their traditional competitors. The use of green cleaning products contributes to a healthier indoor environment for university employees and students. (See also Built Environment and Procurement)

Shands HealthCare, affiliated with the University of Florida Health Science Center and located on the main campus, is one of the Southeast's premier health systems. With multi-specialty group practices based in Gainesville and Jacksonville, approximately 1,000 University of Florida faculty physicians provide care in Shands facilities and more than 80 outpatient practices throughout the region.



Recent Accomplishments

HEALTHY GATORS 2010: A coalition of students, faculty and staff from over 40 University of Florida departments and organizations are working together to create a healthier campus. Their mission is to promote a campus environment supportive of the development and maintenance of a healthy body, mind and spirit for all members of the University of Florida community.

SMOKING CESSATION PROGRAMS: The Student Health Care Center, the University's Employee Assistance Program, the Florida Department of Health, and the University of Florida Area Health

Education Centers run programs for UF students and employees interested in quitting smoking. The program consists of three components: education, group support and medical oversight with pharmaceutical smoking cessation medications and nicotine replacement patches. Discounted medications are available under the prescription and management of a skilled medical provider. There is no cost for attending the smoking cessation classes and medications prescribed to assist with cessation attempts are significantly discounted.

WALKING GATORS: Faculty, staff and students of all fitness levels can participate during the work day, meet new people and get some fresh air and exercise. The program includes six routes conveniently located around campus - each walking route is approximately 20 minutes long and is led at scheduled times throughout the week. Maps of routes are available online for the university community to use to plan their own walks on campus. Student Recreation Center: The Department of Recreational Sports at the University of Florida provides an opportunity for every student to participate in an athletic or recreational activity on a voluntary basis. Through participation, it is hoped that each individual will develop an appreciation of the worthy use of leisure time and a wholesome attitude toward physical activity both while in college and in the future years. (See also Cultural Climate)

Benchmark Programs

The University of California at Berkeley has an ergonomics program for faculty and staff that provides a variety of

services and helps departments prevent repetitive motion injuries. This program established campus ergonomic guidelines for computer users, offers computer ergonomics and back care training, and provides ergonomic interventions in campus work environments.

Framing the Vision

In framing the vision for sustainability in Health & Wellbeing, participants envisioned UF striving to create an environment that supports employees in balancing work and family responsibilities while staying healthy. In order to monitor progress, UF would track indicators of wellbeing such as student and employee access to health care benefits, student and employee access to child care, job satisfaction, retention, and motivation/determination.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

WELLNESS: Develop a fully coordinated wellness effort on campus. The program would cross faculty, staff, and student lines.

FAMILY CARE: Provide an integrated and accessible child care/family support system. The system would be accessible to faculty, staff, and students. (See also Equity)

CONFLICT RESOLUTION: Increase accessibility to conflict resolution assistance. Those seeking assistance with conflict resolution in the workplace would be safe and free from retaliation.

HEALTHY FOOD CHOICES: UF would create easy campus-wide access for employees to healthy food choices at affordable prices. (See also Agriculture)

Participants:

- Phil Barkley, Student Health Care Center*
- Kim Czaplewski, Human Resource Services*
- Bryan Garey, Human Resource Services*
- Marc Heft, Dentistry*
- Glenn Ketcham, Environmental Health & Safety*
- Brook Mercier, Human Resources*
- Henk Monkhurst, Physics, Sustainability Committee representative*
- Lynda Reinhart, O'Connell Center*





EQUITY

Description of Importance and Reason for Inclusion

Access to meeting basic needs has become more tenuous for many families in Florida; communities are experiencing more division, creating more stress for those struggling to get by. An equitable institution increases access to fair wages and benefits, fosters collaborative participation among diverse stakeholders, and enjoys shared outcomes. Individuals who have access to meeting basic needs are more likely to participate in collaborative community efforts. The principles of shared governance at UF include collegiality and collaboration; transparency; representative participation; and mutual accountability.

Diversity within the university community enriches the professional and educational experience for staff, faculty, and students. We learn from those whose experiences, beliefs, and perspectives are different from our own, and these opportunities are most accessible in a richly diverse intellectual and social environment. Education within a diverse setting prepares students to become good citizens in an increasingly complex, pluralistic society.

Guiding Principle

Promote diversity among faculty, students, and staff. Establish policies that support living wages and fair remuneration. Facilitate a shared governance model for management of university operations and the sharing of perspectives and best practices.

How Are We Doing?

MULTICULTURALISM AND DIVERSITY:

As a charter member of the National Association of Diversity Officers in Higher Ed, UF recognizes equity as an important issue for higher education. Diversity is referenced in both the 2007 Strategic Work Plan for UF and the provost's proposal for the development of a Diversity Council.

Currently, the Dean of Students Office hosts a division on Multicultural and Diversity Affairs. The office seeks to promote awareness, understanding of differences, collaboration between cross-cultural groups, and to foster a sense of mutual respect among all students. The Dean of Students Office also assists students in their personal development by providing programs and initiatives that educate, motivate, and challenge them as members of University of Florida. UF's Small Business & Vendor Diversity Relations Division is responsible for overseeing the university's Supplier Diversity Program which focuses on ensuring equal access for Small/HUB, Zone/Minority/Small, Disadvantaged/Veteran/Service-Disabled Veteran/& Women-Owned businesses, by providing them equal opportunity to compete for procurement and contracting opportunities at the university. (See also Purchasing)



The university offers myriad programs, support services, and institutes that support and promote multicultural learning experiences.

- The Institute of Hispanic/Latino Cultures (La Casita) serves as the central station for more than 50 Hispanic-Latino student organizations on campus. The Hispanic Student Association, with more than 1,000 members, actively advocates Hispanic participation in collegiate activities and programs and is the largest minority organization at UF.
- The Institute of Black Culture presents programs that provide educational awareness and information on issues that relate to black culture. For 33 years, the IBC has provided educational, social and cultural programs to share the history and culture of those of African descent. Today it serves as an umbrella to the more than 50 African-American student organizations, as well as a meeting place for African-American students.

- The National Pan-Hellenic Council serves all of UF's historically black Greek fraternities and sororities. The Multicultural Greek Council is the governing body uniting the multicultural Greek organizations.
- The Asian American Student Union (AASU) is dedicated to educating the student body about Asian American issues, history, and culture, and strives to be the premier source of student, social, and political advocacy. On behalf of its constituents, the South Asian American Student Alliance (SAASA) educates UF students about political, social, and cultural issues that pertain to South Asian Americans. There are 11 Asian American student groups on campus.
- LGBT Affairs, in the Dean of Students Office, provides education, advocacy, and support to students, staff, and faculty across campus, serves as a clearinghouse for activities related to gender and sexuality. It houses the FRIENDS ally program; Out and About, a group for graduate students and new (or new-ish) professionals; Alphabet Soup; Subtext, the queer arts magazine, and much more.

As part of the College of Liberal Arts and Sciences effort to enhance the awareness and appreciation of diversity among students, faculty and administrators at the University of Florida, the Office for Academic Support and Institutional Services (OASIS) coordinates the college's support services for first generation and/or underrepresented (including Hispanic, African American, Asian American, and Native American) students and underrepresented faculty.

The First-Year Florida program supports first-year students at the University of Florida, including, but not limited to, first generation students. Class discussions and projects focus on student skills, social diversity, career decisions, and financial management. The course also familiarizes students with the abundant resources and services available at UF, including over 400 campus organizations. A university professional and an undergraduate peer leader team up in this personal setting to help students develop the practical, social, emotional, and intellectual skills that are essential to a fulfilling four years at UF.

WAGES AND BENEFITS: The University of Florida has set aggressive hiring and retention goals to ensure the university

reflects society's racial, ethnic and gender diversity. UF also strives to ensure that all personnel are rewarded with fair wages and benefits, including benefit packages for spouses and domestic partners of university employees. The university minimum wage exceeds the state minimum wage by more than \$2/hour. The university seeks to ensure that contractors affiliated with the university meet or exceed the wage policy established for university employees. Since 2006, the university's fulltime graduate student teaching and research assistants have been offered health insurance.

SHARED GOVERNANCE: As the legislative branch of student government, the Student Senate closely represents the views and ideas of the 50,000+ students at the University of Florida. The Student Senate performs tasks ranging from confirming Executive and Judicial appointments to passing Student Body Laws, Authorizations, and Resolutions. The Senate is also responsible for allocating the activity and service fees each year, which is currently well over 13 million dollars.

As the legislative body of the University of Florida, the Faculty Senate is directed by the University Constitution to take cognizance of matters which concern more than one college, school, or other major academic unit, or which are otherwise of general university interest; and it

Education within a diverse setting prepares students to become good citizens in an increasingly complex, pluralistic society.

is empowered by the University Constitution to legislate with respect to such matters, subject to the approval of the President and in appropriate instances the Board of Trustees and subject to the rule-making procedures of the Florida Administrative Act, if applicable.

The Academic and Professional Assembly consists of administrative employees classified as TEAMS employees and all career faculty who are not members of the University of Florida Faculty Senate. The purpose of the APA is to promote representation, recognition,

professional networking, and university and community service opportunities for its members.

Recent Accomplishments

GATORSHIP: This unique leadership experience for both emerging and experienced student leaders is designed to be an intense and thought-provoking weekend retreat where over 60 participants and student staff have the opportunity to interact through team building activities and group discussions. The focus is to identify current leadership issues in a multicultural society both at the University of Florida and in the community. Participants engage in educational sessions and serve as peer educators through the sharing of personal experience.

FACES OF SUSTAINABILITY: The Office of Sustainability has launched a Faces of Sustainability video campaign that features employees and graduate students who implement sustainability in their work. The goal of the campaign is to highlight the diversity of staff engaged in translating UF's sustainability goals into action.

SUSTAINABILITY COMMITTEE: In 2006, the ad hoc Sustainability Committee became a Joint Standing Committee of the Faculty Senate, the highest level of permanence that can be delegated to a committee. As a joint committee, it is comprised of faculty elected by the Senate, staff and faculty appointed by the President's designee, and students selected by the Dean of Students Office. This structure reflects the university's commitment to shared governance - the involvement of individuals who represent the whole campus in real decision-making. The committee meets monthly with

the director of the Office of Sustainability and the Provost Faculty Fellow for Sustainability. (See also Institutional Commitment)

Benchmark Programs

Ohio State University (OSU) has numerous diversity councils at the college and/or departmental level throughout the university. Deans and department chairs are held accountable for diversity within their departments. The OSU Diversity Action Plan provides an assessment, recommendation, and action steps at the university-wide and individual college and department levels. They maintain a diversity newsletter and calendar of events, and publish a diversity report that tracks programs and progress on campus.

Framing the Vision

In framing the vision for sustainability in Equity, participants envisioned a campus community in which all members, including students, faculty, and staff from underrepresented groups, felt like valued members of the Gator Nation. In this vision, definitions of multiculturalism would include a full range of diversity including race, gender, cultural heritage, and economic backgrounds. Members of the Gator Nation would understand how and why diversity is an essential element of a sustainable community. Students from underrepresented groups would feel not just included, but reached out to. All jobs would be respected for their contribution to the successful operation of the university. Employees would have equal access to training and professional development.

Reaching the Vision

In order to reach this vision, participants identified the following opportunities.

EXPAND MULTICULTURAL LIVING/LEARNING OPPORTUNITIES: Programs like Gatorship would include more students in multicultural training.

PROVIDE AN INTEGRATED AND ACCESSIBLE CHILD CARE/FAMILY SUPPORT SYSTEM: The system would be accessible for faculty, staff, and students. (See also Health and Wellbeing)

EXPORT THE CELEBRATION OF INCLUSION: UF would serve as an incubator for multicultural programs and celebrations.



Through IFAS/Extension, UF would export ideas of cultural celebration and inclusion to Florida's communities by demonstrating opportunities for outreach and creative ways to integrate personal values into work.

EMPHASIZE DIVERSITY IN THE GATOR NATION CAMPAIGN: the campaign would reflect the sentiment that "members of the Gator Nation are everywhere and we reflect and celebrate a full range of diversity". Multiculturalism would be an important and celebrated identifier for UF in the domestic and global community.

REFLECT DIVERSITY OF POPULATIONS: Through active recruitment, hiring, and retention, UF's populations would reflect the population as a whole. Faculty population would mirror the national



demographics of a top-10 university, and the student population would reflect the State of Florida’s racial, ethnic and gender diversity. Leadership would reflect the diversity of both populations.

COMMUNICATE VALUE: Communicate and demonstrate how all employees, positions, and contributions are valued as a part of UF’s mission.

INCREASE TRAINING: Increase the levels of investment in gender and equity training of all personnel working at or hired by the University of Florida.

CREATE A CAMPUS ENTITY FOR DIVERSITY: Create an office, council, or committee that facilitates expanded opportunities and outreach for UF faculty, staff, and students. This would be a center where people would come to learn, celebrate, and discuss diversity. The role of this physical and/or virtual center would include:

- Partnering with the Community Relations Office to facilitate opportunities for UF faculty, staff, and students to get involved in multicultural celebrations
- Offering opportunities for real dialogue about race, class, gender, sexual orientation - the breadth and depth of diversity
- Supporting First Year Florida in introducing and supporting students in a full range of multicultural opportunities on campus
- Developing an institutional plan to help the UF community embrace diversity and social justice
- Facilitating the development of equitable institution policies and practices

- Establishing an expanded definition of diversity that includes a full expression and celebration of differences
- Establishing an educational program that illustrates the value of social justice/diversity in a sustainable campus community
- Providing opportunities for service learning and civic engagement in the local community
- Establishing benchmarks and promoting diversity in representative leadership

MAKE FAIR REMUNERATION: Create wage and benefit goals that allow employees to subsist on wages earned from one job and set a minimum threshold for wages above eligibility for food stamps. When employees’ financial ability to meet their basic needs is secure, they will be more able to engage in important sustainable behaviors.

CREATE WAGE PARITY ACROSS CAMPUS DEPARTMENTS: Wages would be consistent for like jobs between colleges and departments.

NARROW THE GAP: Establish a trend of decreasing disparity between highest and lowest paid employees.

SUPPORT TELECOMMUTING: Provide training for all managers for flexible scheduling and telecommuting for employees, including topics such as how to manage remotely. Allow employees flexibility to work from home to reduce commuting when appropriate. (See also Transportation)

INCREASE ACCESSIBILITY TO CONFLICT RESOLUTION ASSISTANCE: Those seeking assistance with conflict resolution in the workplace would be safe and free from retaliation. (See also Health and Wellbeing)

POWER: Strive for a workplace that distributes power and decision-making more evenly and transparently across all sectors of the university

AIM FOR TOP 10 STATUS: UF would be recognized as being in the Top 10 state universities in the country for employee well-being and would be featured on lists of the best places to work for parents, women, etc. (See also Health & Wellbeing)

Participants:

- Tamara Cohen, Dean of Students Office - Multicultural Affairs,*
- Linda Crider, Urban and Regional Planning, Sustainability Committee representative*
- Shelton Davis, Equal Opportunity Employment Office*
- Larry Ellis, Human Resource Services*
- Chris Machen, President’s Office, Sustainability Committee representative*
- Brook Mercier, Human Resource Services*
- Kelly Moosbrugger, Sustainability Committee student member*
- Nora Spencer, Multicultural and Diversity Affairs*
- Florence Turcotte, LGBT Concerns Committee, Smathers Libraries*



CULTURAL CLIMATE



Center main stage. The Phillips Center consists of a 1,700-seat proscenium hall and a 200-seat Black Box Theatre.

ACCENT Speaker's Bureau is the largest, student-run, speaker's bureau in the nation. Created in 1967, ACCENT is celebrating 40 continuous years of bringing prominent, controversial, and influential speakers to the University of Florida. ACCENT strives to bring world class programming to educate, enlighten, engage, and entertain the student body.

The Department of Recreational Sports provides an opportunity for students to participate in athletic or recreational activities on a voluntary basis. Through participation, it is hoped that each individual will develop an appreciation of the worthy use of leisure time and a wholesome attitude toward physical activity both while in college and in the future years. (See also Health and Wellbeing)

STUDENT ORGANIZATIONS: UF hosts over 600 student organizations. These groups range broadly in their focus, from social to service.

Guiding Principle

Foster a cultural climate that supports a full range of creative expression, artistic experience, and recreational opportunity.

How We Are Doing?

UF strives to provide cultural opportunities that enhance the quality of life for the local community and visitors to the university. There are a number of cultural destinations on campus, and many organizations and departments that are working to develop unique and diverse cultural opportunities.

The Florida Museum of Natural History is Florida's state museum of natural history, dedicated to understanding, preserving and interpreting biological diversity and cultural heritage. With more than 20 million specimens, the Florida Museum is the largest natural history museum in the Southeast.

The Harn Museum of Art is one of the largest university art museums in the southeast with 86,800 square feet

consisting of five permanent collection galleries and three temporary exhibition galleries. Its collections focus on Asian, African, modern and contemporary art and photography.

University of Florida Performing Arts is in the top 10 among the country's public universities, presenting the very best established and emerging national and international artists on the Phillips





STEWARDSHIP

Throughout all the sessions covered by this report, reoccurring themes related the need for a culture shift and the creation of common/collective norms that support sustainability. Every group revisited the need for sustainability to become part of everyday life and operations for the UF community - for the campus to be a living laboratory for sustainable practices and behaviors. Participants expressed that evolving a culture of sustainability at UF would require effective leadership at all levels and a shared governance system for all at UF to feel the shared responsibility and benefits of our collective actions.

A session on Campus Culture revealed that an overall shift in UF's culture would be necessary to implement the visions developed by all of the groups. UF's guiding principle for Stewardship - encourage all members of the Gator Nation to take responsibility for the interdependent environmental, economic, and social consequences of their actions - captures the tone of the visions articulated across the sessions.

The University of Florida has an obligation to meet the challenges of sustainability because as educators we play a leading role in training the scientific, social, political and cultural leaders, as well as the professionals and policy-makers, who will make a difference in the world. Whether the world will be a better or worse place when our students become its citizens, parents, and leaders will be, in no small part, a function of the values, knowledge and skills they receive here.

How Are We Doing?

PREVIEW: In an effort to integrate sustainability into the student experience,

the Office of Sustainability is working with Preview staff to incorporate information and tools for sustainable living into the programs that support new families in their transition to UF.

COMMENCEMENT: 350 graduating Gators signed the Green Graduation Pledge in 2008, vowing to take sustainable practices with them into their careers and communities.

SUSTAINABILITY BOOK CLUB: The Sustainability Book Club offers faculty and staff an opportunity to explore topics related to sustainability, and to develop friendships with peers from across campus.

GREEN TEAM: In Spring 2007, the Office of Sustainability launched the Green Team network. Members of this network act as ambassadors for campus sustainability. This endeavor is fostered by the individual efforts of the team members within their affiliated areas, as well as in campus-wide group efforts.

NEWSLETTER: The Office of Sustainability publishes a monthly electronic newsletter to communicate stories about campus sustainability, including IFAS/Extension, operations, education, student efforts, sustainable living tips, and a frequently asked question forum.

STUDENT SUPPORT: Sustainability is supported by at least fifteen student groups across campus, student government, and student senate. The senate passed a resolution honoring the office and its commitment to promoting sustainability in 2007. The fraternities and sororities support sustainability through the Greeks Going Green campaign. The students

passed a Renewable Energy Fee ballot referendum in 2006 with 78% voting in favor of the \$.50/credit hour fee. The student group, Gators for a Sustainable Campus, has nearly 500 members; 240 members signed their Sustainable Gator Pledge in the first month it was offered.

SUSTAINABILITY CONFERENCE: UF hosted the inaugural Florida Campus and Community Sustainability conference in 2006, which was hosted by FSU in 2007, and will be hosted by UCF in 2008.

Visions developed during the Campus Culture session have been integrated throughout this report. We would like to acknowledge the participants in this unique session.

Participants:

Bonnie Bernau, Harn Museum
Fred Cantrell, Business Affairs
Mary Kay Carodire, Dean of Students Office
Kevin Clarke, Human Resource Services
Shelton Davis, Equal Opportunity Employment Office
Paula Fussell, Human Resource Services
John Ingram, Libraries
Susanne Lewis, ARAMARK/Gator Dining
Chris Machen, President's Office, Sustainability Committee representative
Brook Mercier, Human Resource Services
Kim Pace, Office of the President
Andrew Perrone, Dean of Student's Office-Center for Leadership and Service
Lucida Poudrier-Aaronson, Housing and Residence Life
Dulce Roman, Harn Museum
Wayne Wallace, UF Career Resource Center

INSTITUTIONAL COMMITMENT

Description of Importance and Reason for Inclusion

The integration of sustainability into operations, education, research, and outreach ultimately requires grassroots support, leadership from top level administrators, and full support by deans, directors, and department chairs. An institution's commitment to sustainability must be acted on and communicated at all levels of the institution, and reinforced in its outreach and marketing efforts.

How Are We Doing?

HISTORY: As is reflected in the History section of this report, the University of Florida has a long-standing commitment to sustainability beginning with signature of the Talloires Declaration in 1994. The 2006 opening of a campus-wide office to facilitate the integration of sustainability signaled the university's commitment to institutionalizing the effort.

CAMPUS MASTER PLAN: The university's campus master plan demonstrates UF's commitment to sustainability and environmental stewardship. The successful implementation of the master plan garnered the university designation as a "Certified Audubon Cooperative Sanctuary" in 2005. UF is the first university to achieve this status, making it one of 607 such sanctuaries in the world. To achieve the designation, UF had to demonstrate that it was maintaining a high degree of environmental quality in five areas: environmental planning, wildlife habitat management, resource conservation, waste management and outreach and education. (See also Land and Resource Management)

SUSTAINABILITY COMMITTEE: The Sustainability Committee is a Joint Standing Committee of the Faculty Senate, the highest level of permanence that can be delegated to a committee. As a joint committee, it is comprised of faculty elected by the Senate, staff and faculty appointed by the President's designee, and students selected by the Dean of Students Office. This structure reflects the university's commitment to shared governance - the involvement of individuals who represent the whole campus in real decision-making. The committee meets monthly with the director of the

PROVOST FACULTY FELLOW FOR SUSTAINABILITY: The Office of the Provost instituted a faculty fellow position to coordinate university-wide academic efforts in sustainability in January 2008. The fellow, together with representatives of the Sustainability Committee and student leaders from several campus sustainability organizations, helped shepherd through the system an undergraduate minor in sustainability studies. The minor was approved by the university curriculum committee in April 2008. (See also Teaching and Research)

Throughout all the sessions covered by this report, reoccurring themes related the need for a culture shift and the creation of common/collective norms that support sustainability.

Office of Sustainability and the Provost Faculty Fellow for Sustainability. (See also Equity)

Recent Accomplishments

PRESIDENTS CLIMATE COMMITMENT: President J. Bernard Machen signed the American College & University Presidents Climate Commitment in October 2006, indicating his support for the Sustainability Committee's institutional work to address climate change. (See also Energy Conservation and Climate Change)

SUSTAINABILITY MINI-GRANTS: The Office of the Provost supported a 2006-07 mini-grant program for faculty wishing to incorporate sustainability into course work. (See also Teaching and Research)

ANNUAL REPORT: The theme of the university's 2007 Annual Report was sustainability. This report reflects the university's commitment to and progress toward measuring its integrated bottom line.

ONGOING FUNDING SUPPORT: A Legislative Budget Request (LBR) for a UF Center for Sustainability and a Healthy Environment was drafted by the Sustainability Committee. This Center would act as an academic clearinghouse for sustainability efforts on campus, and would support both internal faculty as well as affiliated faculty from across campus in their research and education efforts. The LBR was vetted by interested parties at several meetings, and submit-

ted to the deans and vice presidents for approval. The vice presidents selected it from among a larger pool to be submitted to the Florida Legislature. Although the LBR has not been funded (the state LBR process is on hold), it is on UF's federal list of funding requests. (See also Institutional Commitment)

Benchmark Programs

The University of British Columbia signifies its commitment to sustainability through its institutional mission: UBC aspires to be one of the world's best universities, preparing students to become exceptional global citizens, promoting the values of a civil and sustainable society, and conducting outstanding research to serve the people of British Columbia, Canada, and the world. UBC has also adopted a guiding document that unites all of its departments under one sustainability strategy for the entire university.

Arizona State University's Global Institute of Sustainability facilitate research, education, and problem-solving related to sustainability. Its mission is to nurture work on issues of sustainability across many departments on the four campuses of ASU, and collaborates with other academic institutions, governments, businesses and industries, and community groups locally, nationally, and globally.

Framing the Vision

At the conclusion of the first thirteen sessions, eight threads emerged from nearly every group that convened. Facilitators culled these common threads and asked senior level leaders to rank the impact of these visions and the probability that they would be

implemented at UF. This feedback will inform the timing and development of strategic implementation plans.

Those threads and their ranking included:

High Impact and High Probability

- UF's commitment to sustainability would be reflected in the Mission, Strategic Plan, and all major UF communications, and would be enforced in all policies.

High Impact and Moderate Probability

- UF would encourage collaborative research and look for opportunities to demonstrate research on campus (living laboratory model).

- The UF Foundation and development staff members would diversify options for donors to include sustainability projects and would actively solicit donors for these projects.
- Life-cycle costs and long-range resource use would be considered in all new campus development plans and communicated to all stakeholders.
- UF would develop a re-investment program or loan fund for campus sustainability projects.
- University departments would be aware of their resource use and have some accountability for managing them wisely.





High Impact and Low Probability

- All job descriptions and job performance evaluations would include assessments of employees' integration of sustainability, service, and collaborative innovation into their work.

Moderate Impact and Very Low Probability

- Tenure track and promotion processes would balance a commitment to research and publishing with a commitment to service and collaboration.

Reaching the Vision

MISSION: UF would incorporate its commitment to sustainability and the wellbeing of future generations into its mission statement.

STRATEGIC WORK PLAN: The Office of the President would incorporate campus sustainability priorities into the university's Strategic Work Plan.

INTERNAL SUSTAINABILITY AWARDS

PROGRAM: UF would offer an award program for faculty, staff, or students who show dedication to furthering sustainability and/or who demonstrate an innovative best practice for sustainability on campus.

Funding

■ DEDICATED SUSTAINABILITY FUNDING:

UF would have in place a revolving loan fund or similar internal mechanism to fund sustainability projects (not including faculty research). This may take the form of a grant program that provides funding for internal sustainability projects.

■ ALUMNI/FRIENDS SUSTAINABILITY

FUND: UF would offer an opportunity for alumni and friends of the university to financially support campus sustainability efforts.

■ PAYROLL DEDUCTION OPTION FOR

SUSTAINABILITY: UF would offer faculty and staff an opportunity to donate a portion of their salary to a fund for campus sustainability projects.

Participants:

Jeff Burkhardt, UF Sustainability Committee Chair

Kyle Cavanaugh, UF Senior Vice President

Jamie Keith, General Council

J. Bernard Machen, UF President

Greg McGarity, UAA Senior Associate Athletic Director

Devesh Nirmul, UF/IFAS Extension

Win Phillips, Senior Vice President of Research

Ed Poppell, Vice President of Business Affairs

Paul Robell, Vice president for Alumni and Development Affairs

Patricia Telles-Irvin, Vice President for Student Affairs

Rick Yost, Faculty Senate Chair, 2007-08

WHAT'S NEXT

In 2001, UF completed a sustainability assessment using the Global Reporting Initiative as a guide. Since that time, the higher education sustainability community has been working to develop a similar assessment framework that specifically addresses the unique indicators of sustainability in higher education.

AASHE STARS

The Association for the Advancement of Sustainability in Higher Education (AASHE) has developed the Sustainability Tracking, Assessment, and Rating System (STARS). STARS is a voluntary, self-reporting framework for gauging relative progress toward sustainability for colleges and universities.

STARS is designed to:

1. Provide a guide for advancing sustainability in all sectors of higher education.
2. Enable meaningful comparisons over time and across institutions by establishing a common standard of measurement for sustainability in higher education.
3. Create incentives for continual improvement toward sustainability.
4. Facilitate information sharing about higher education sustainability practices and performance.
5. Build a stronger, more diverse campus sustainability community.

With the expanded vision report in hand, the Office of Sustainability and the Sustainability Committee are prepared to engage members of the UF community in a collaborative process of sharing these visions and facilitating the development of action plans for their implementation.

Over ninety colleges and universities are participating in the STARS pilot project. Schools were selected to represent diverse institution types, geographic regions, and sizes. The STARS pilot project is taking place from February to December 2008. Institutions participating in the pilot are testing the system and providing feedback to AASHE to help shape future iterations of STARS. UF is a pilot campus.

Strategic Implementation Plan Development

With the expanded vision report in hand, the Office of Sustainability and the Sustainability Committee are prepared to engage members of the UF community in a collaborative process of sharing these visions and facilitating the development of action plans for their implementation.

As a result of the mere opportunity to collaborate during these sessions, some stakeholders began to implement new strategies with newly found campus partners immediately.

GLOSSARY OF CONCEPTS

Concepts (in popular usage across the country and beyond)

ADAPTIVE MANAGEMENT LOOP: A feedback loop which ensures that policies and practices are continually improved by learning from the outcomes of previous work.

BEST MANAGEMENT PRACTICE (BMP): A technique, method, process, activity, incentive or reward that is agreed to be more efficient or effective at delivering a particular outcome than any other practice.

CARBON OFFSET: A financial instrument representing a reduction in greenhouse gas emissions. One carbon offset represents the reduction of one metric ton of carbon dioxide, or its equivalent in other greenhouse gases, through the planting of trees to absorb carbon dioxide, investment in renewable energy to replace fossil-based fuels, or other reduction project.

CLOSED-CYCLE: A process in which no wastes or by-products are created.

CLOSED LOOP: Collecting used products or by-products from a process such as manufacturing and then reusing or recycling all collected products and components.

CRADLE-TO-CRADLE: A process in which all material inputs and outputs are seen either as technical or biological nutrients. Technical nutrients can be recycled or re-used with no loss of quality and biological nutrients composted or consumed.

DOWNCYCLE: The disassembly and breakdown of products and materials into component parts and materials for re-use and recycling. Compared to recycling in which products and materials are remade directly into the same products and materials.

EXTERNALIZED COSTS: Indirect costs and or negative effects of a process that are passed on to others and not accounted for by the entity engaged in

process, such as the negative costs of pollution to society.

FIRST GENERATION STUDENTS: Students who are the first in their families to attend college - neither parents nor grandparents have attended college.

FULL-COST ACCOUNTING (FCA): The process of collecting and presenting costs over the entire lifetime of a product or activity, including environmental, social, and economic costs.

GREENHOUSE GAS: The gases present in the atmosphere which reduce the loss of heat into space and therefore contribute to rising global temperatures through the greenhouse effect.



INDOOR AIR QUALITY: The status of the air inside a building - what gases and particulates it contains and how it affects the health of the building occupants.

INTEGRATED PEST MANAGEMENT: The use of pest and environmental information in conjunction with available pest control technologies to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to persons, property and the environment.

LOW IMPACT DEVELOPMENT: A land planning and engineering design approach that emphasizes conservation and protection of natural resources.

LIVING LABORATORY: A functional building, mechanical or electrical system, or outdoor area that provides an opportunity for experiential research and education.

NONPOINT SOURCE (POLLUTION): Water or air pollution that cannot be traced to a single source, such as emissions from vehicles or stormwater runoff, as opposed to pollution from a factory or power plant.

OFF-PEAK: Off-peak refers to times when power plants are not operating at capacity because the demand for energy is lower. Off-peak hours occur at different times in different climates, but generally occur overnight in all areas.

ORNAMENTAL PLANTS: Plants that are grown for their decorative qualities rather than for agriculture or forestry.

RETURN ON INVESTMENT: The ratio of money gained or lost on an investment relative to the amount of money invested.

SINGLE OCCUPANCY VEHICLE: A privately operated vehicle whose only occupant is the driver. The drivers of SOVs use their vehicles primarily for personal travel, daily commuting and for running errands. SOVs create traffic and greenhouse gas emissions, which could be reduced by riding instead in high occupancy vehicles, or vehicles with multiple persons, or taking public transportation.

THREE ES: Environment, Economy, and Equity are the three Es, which represent the three integrated areas of sustainability.

TRANSPORTATION DEMAND MANAGEMENT: The application of strategies and policies to influence traveler behavior with the aim of reducing automobile travel demand, or redistributing this demand in space or over time.

VOLATILE ORGANIC COMPOUND (VOC): An organic or chemical compound that has high vapor pressures and low water solubility. VOCs are often components of petroleum fuels, hydraulic fluids, paint thinners, and dry cleaning agents. VOCs are common ground-water contaminants and often produce greenhouse gas emissions.

WASTE-TO-ENERGY: A process of creating energy from waste products through heat recovery, incineration, thermal gasification, or anaerobic digestion.



Terms (local, UF terms, terms and proper names in local usage)

ASSOCIATION FOR THE ADVANCEMENT OF SUSTAINABILITY IN HIGHER EDUCATION (AASHE) SUPPORT ORGANIZATION:

A member organization of AASHE (usually a university) that works with other members and universities to promote sustainability in all sectors of higher education - from governance and operations to curriculum and outreach - through education, communication, research and professional development.

ENVIRONMENTAL HEALTH AND SAFETY:

Division of UF that helps to maintain a safe working environment for the University community, including compliance with local, state, and federal regulations. Areas of service include Laboratory Safety, Biological Safety, Hazardous Materials Management, Radiation Control and the Occupational Medicine program.

FACILITIES PLANNING AND CONSTRUCTION: UF division responsible for the planning and construction of all physical facilities of the University of Florida and the management of its space and physical resources.

FOREST STEWARDSHIP COUNCIL: An organization created to coordinate the development of sustainable forest management standards throughout the different regions of the U.S., to provide public information about certification and FSC, and to work with certification organizations to promote FSC certification in the U.S.

GATOR DINING SERVICES: The contract food service provider to the University of Florida.

GREENRIDE: A web-based application that promotes the use of ridesharing within the UF and Shands community. Commuters can search for ridesharing partners among the other employees and students registered with GreenRide who live near them and have similar schedules and lifestyle preferences.

INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES: A federal-state-county partnership dedicated to developing knowledge in agriculture, human and natural resources, and the life sciences, and to enhancing and sustaining the quality of human life by making that information accessible.

LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN: A nationally accepted third party certification standard for the design, construction and operation of high performance green buildings.

PROGRAM FOR RESOURCE EFFICIENT COMMUNITIES: A program of UF/IFAS that integrates and applies the University of Florida's educational and analytical assets to promote the adoption of best design, construction, and management practices that measurably reduce energy and water consumption and environmental degradation in new residential community developments.

REGIONAL TRANSIT SYSTEM: The transit (bus) system in Gainesville, FL that also serves the UF campus.

SUSTAINABILITY TRACKING, ASSESSMENT, AND RATING SYSTEM: A voluntary, self-reporting framework developed by AASHE for gauging relative progress toward sustainability for colleges and universities.

ZIPCAR: A membership-based carsharing company that offers hourly and/or daily rental of cars and trucks to students, faculty, and staff. Vehicles are available at several locations across the UF campus.

Acronyms (see Concepts or Terms, above, for descriptions)

AASHE-ASSOCIATION FOR THE ADVANCEMENT OF SUSTAINABILITY IN HIGHER EDUCATION: An association of colleges, universities, NGOs, and business partners in the U.S. and Canada working to create a sustainable future.

BMP-BEST MANAGEMENT PRACTICE: A technique, method, process, activity, incentive or reward that is more efficient or effective at delivering a particular outcome than any other practice.

DSO-DIRECT SUPPORT ORGANIZATION: A separate legal operating entity that directly supports the University of Florida (i.e., The University Athletic Association or the University of Florida Foundation).

EH&S-ENVIRONMENTAL HEALTH AND SAFETY: Division of UF that helps to maintain a safe working environment for the University community, including compliance with local, state, and federal regulations.

EPEAT- ELECTRONIC PRODUCT ENVIRONMENTAL ASSESSMENT TOOL: An on-line tool helping institutional purchasers select and compare computer desktops, laptops and monitors based on their environmental attributes.

FPC-FACILITIES PLANNING AND CONSTRUCTION: UF division responsible for the planning and construction of the major project (\$1 million dollars or more) facilities, of the University of Florida and the management of its space and physical resources.

FSC-FOREST STEWARDSHIP COUNCIL: An organization created to develop third party certification standards for sustainable forest management.

GDS-GATOR DINING SERVICES: The official food service provider of the University of Florida.

GHG-GREENHOUSE GAS: The gases present in the atmosphere that reflect heat back onto the earth and therefore contribute to rising global temperatures through the greenhouse effect.



IAQ-INDOOR AIR QUALITY: The status of the air inside a building - what gases and particulates it contains and how it affects the health of the building occupants.

IFAS-INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES: A federal-state-county partnership dedicated to developing knowledge in agriculture, human and natural resources, and the life sciences.

IPM-INTEGRATED PEST MANAGEMENT: The use of pest and environmental information in conjunction with available pest control technologies to prevent unacceptable levels of pest damage by the most economical means and with the

least possible hazard to persons, property and the environment.

LGBT: Lesbian, gay, bisexual, and transgendered

LEED™-LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN: A third party certification program for high performance buildings.

LID-LOW IMPACT DEVELOPMENT: A land planning and engineering design approach that emphasizes conservation and protection of natural resources.

NPS-NONPOINT SOURCE (POLLUTION): Water or air pollution that cannot be traced to a single source, such as emissions from vehicles or stormwater runoff.

PPD-UF PHYSICAL PLANT DIVISION: PPD manages the university's physical plant, including utilities and all building projects less than \$1 million dollars.

PREC-PROGRAM FOR RESOURCE EFFICIENT COMMUNITIES: A program of UF/IFAS that integrates and applies the University of Florida's educational and analytical assets to promote the adoption of best design, construction, and management practices that measurably reduce energy and water consumption

and environmental degradation in new residential community developments.

ROI-RETURN ON INVESTMENT: The ratio of money gained or lost on an investment relative to the amount of money invested.

RTS-REGIONAL TRANSIT SYSTEM: The transit (bus) system in Gainesville, FL that also serves the UF campus.

SHEAF-SUSTAINABILITY IN HIGHER EDUCATION ASSESSMENT FRAMEWORK: A tool developed by AASHE for assessing and benchmarking the sustainability performance of multiple institutions.

SOV-SINGLE OCCUPANCY VEHICLE: A privately operated vehicle whose only occupant is the driver.

STARS-SUSTAINABILITY TRACKING, ASSESSMENT, AND RATING SYSTEM: A voluntary, self-reporting framework developed by AASHE for gauging relative progress toward sustainability for colleges and universities.

TDM-TRANSPORTATION DEMAND MANAGEMENT: The application of strategies and policies to influence traveler behavior with the aim of reducing automobile travel demand, or redistributing this demand in space or in time.

VOC-VOLATILE ORGANIC COMPOUND: An organic or chemical compound that has high vapor pressures and low water solubility.





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