Sustainable Campus Operations Committee:

INTERIM REPORT

The Sustainable Campus Operations Committee (SCOC) was charged with developing the operational plans for a sustainable campus. The approach taken by the committee is aligned with campus strategic planning. The implications of the campus strategic plan and the sustainable campus plan are intimately connected, and they should be discussed in ways where their linkages are visible and understood. Decision-making for sustainability needs integration with decision-making at all levels of university administration. In this spirit, the format of this interim report provides an overview of the preliminary goals, strategies and metrics for sustainable campus operations.

The planning process is organized to reflect four major areas of building sustainable communities: energy, transportation, water, and waste. Each of these areas was carefully examined to identify a succinct set of goals that reflect our commitment toward a sustainable campus. Some illustrative strategies (under each of the four major areas) are presented to provide a sense of the initiatives necessary to make progress toward the goals. The strategies are classified as being *short term* or *long term*, with the former being something relatively easy to implement with the first year, and latter being initiatives that will take an enduring effort over the course of several planning cycles to have an effect on sustainability. These strategies are considered illustrative in that our committee developed no less than 20 strategies for each area. To provide more than a few illustrative strategies in this interim report would overwhelm the general narrative and risk the loss of understanding the goals of the four major areas of building sustainable communities.

The approach is deliberately situated in the current state of sustainability of campus operations. The SCOC is comprised of faculty, staff, and students from diverse functional areas to insure a grounding in current operations. The SCOC membership includes the following people and their affiliations:

Brian Deal, Chair Professor, Department of Urban and Regional Planning

Carl Wegel, Chair Facilities and Services

faculty representatives

Gary Cziko Professor Emeritus of Educational Psychology  
member Urbana Sustainability Advisory Commission, and member Urbana Bicycle and Pedestrian Advisory Commission

Bill Stewart Associate Dean, College of Applied Health Sciences

Tony Endress NRES

Art Schmidt Civil & Env Engineering

Charlie Werth Civil & Env Engineering

student representatives

Suhail Barot Student

Amy Allen Student

Erin Harper Student

Eric Holthaus Student

Robby Boyer Student

facilities representatives

Dawn Aubrey Housing Division

Guy Grant F&S

Tom Abram F&S

Mike Litchford Campus Rec

Morgan Johnston F&S Transportation

Vonne Ortiz Housing Division

community representative

Cynthia Hoyle CU MTD

**Summary**

The following are 5 short term initiatives followed by the 5 substantive areas described above.

1. Consider/propose how the campus might coordinate the work of the many diverse groups who are sponsoring/undertaking operational initiatives to foster sustainability.
2. Consider/propose how the planning activities on campus can be massaged to include sustainability as a key element - beyond LEED Certification of facilities and energy conservation. A planning consortium including faculty, staff, students and community was suggested. (My caution would be that the campus is already unhappy with the time it takes to actualize a project.)
3. Consider/propose a coordinated funding structure for sustainability initiatives. This is quite similar to item #1, but from a financial perspective.
4. Identify 2-5 major campus events that could be used as vehicles to promote/highlight sustainability - Green Athletic Events, Recyclemania, Leave Your Car At Home Day, etc.
5. Identify State and university policies that hamper sustainability and propose vehicles for affecting changes.

Other considerations.

* ESCO's are not the most profitable way to make progress against our energy conservation goals. The professional staff at F&S and some among the academic departments can easily identify the same energy savings measures any ESCO will propose. If we were to undertake those improvements/modifications/corrections/maintenance with either in-house forces or though a bid process, the university would not have to share the resulting savings with an ESCO. However, the campus has not developed a funding mechanism to capitalize this work. Hence the need for ESCO's. Other financial mechanisms to be explored include bonds and low-interest green loans provided by the Illinois Treasurer’s office.
* We need to set aside materials coming through the transfer station but which are not on university inventory and are still useable, to allow casual shopping by university departments for reuse.
* We need to work with Springfield/CMS to a allow departments to at least realize their costs when they dispose of inventorial equipment by transfer to CMS. Or, allow them to sell unused inventory, sending the proceeds to CMS, LESS their direct handling/disposal costs.

**ENERGY**

Goal 1: Eliminate coal consumption and boost renewables

Goal 2: Reduce energy use of new and existing building stock

Goal 3. Establish innovative funding mechanisms for energy projects

Examples of *short term* strategies:

* + - Cap coal consumption at FY08 levels and seek to use coal only when steam load cannot be met with natural gas
    - Require all new campus building projects and major renovations to achieve LEED Gold certification at a minimum with aggressive energy performance standards
    - Impose energy use surcharge to pay down utilities deficit and restrict savings from reduced energy consumption for energy conservation.
    - Enact a college level billing program which adequately rewards and prioritizes energy conservation through its rate structure, while providing units adequate financial and technical resources to implement efficiency measures
    - Complete pilot LEED Existing Buildings:Operations and Maintenance project
    - Engage the UI Foundation in fundraising for sustainability efforts

Examples of *long term* strategies:

* + - Achieve LEED Gold EB: O&M certification for all major campus buildings
    - Renewables in campus energy mix to exceed State of Illinois Renewable Portfolio Standards.
    - Require all new campus construction to be net-zero energy.

Potential metrics:

* CO2 generated at Abbott power plant and from purchased electricity
* Campus renewable energy generation capacity
* Tons of coal consumed by campus
* Number of LEED Gold certified buildings
* % of F&S Staff with sustainability credentials
* Annual spending on energy conservation
* Year-on-Year decrease in campus energy consumption

**SPACE NEUTRAL**

Goal 1: Stop the growth of total building area on campus

Goal 2: Repurpose existing space to accommodate present needs

Goal 3: Share university facilities with other State agencies to support State resource consumption avoidance

Examples of *short term* strategies:

* Analyze campus space allocation to identify excess consumption
* Identify underutilization of classrooms resulting from schedule concentration
* Identify laboratory space that has been abandoned in place
* Centralize the control of all campus space

Examples of *long term* strategies:

* Reassign underutilized space
* Institute a policy requiring campus units to rent their space
* Schedule classes to achieve a greater utilization of some classrooms, while allowing a repurposing of others
* Develop office sharing policies, promoted by telecommuting and facilitated by office design protocols
* Institute a policy which allows new space to be added only as old space is demolished
* Reassign space assignments based on usage schedules to allow for more aggressive energy setback measures. For example, put 24 hour labs/studios in the same building instead of spread across several buildings

Potential metrics:

* Total campus square footage
* Average student contact hours per week per classroom seat
* Number of faculty/staff having more than one office
* Percent of space unassigned/underutilized

**TRANSPORTATION**

Goal 1: Carbon neutral campus transportation.

Goal 2: Increase bicycling and walking to, from, and within campus.

Goal 3. Increase car pooling, van pooling, and use of public transportation to, from, and within campus.

Examples of *short term* strategies:

* + - Approve and implement already-drafted campus bicycle plan
    - Celebrate “Leave your car at home day”
    - New campus vehicle purchases need to be in the top two categories of fuel efficiency in their class
    - Select and implement ride matching service
    - Enact a van pooling program in conjunction with the CUMTD
    - Improve calculation of carbon footprint from campus transportation

Examples of *long term* strategies:

* Integrate campus bike transportation planning with local community bike transportation planning
* Restructure vehicle parking fees to discourage on-campus single occupancy vehicle (SOV) parking
* Develop financial incentives coupled with social marketing plan to encourage bicycling, walking, bus riding, and/or car pooling to campus

Potential metrics:

* Portion of university faculty/staff bicycling, walking, car pooling, van pooling, and/or bus riding to campus
* Number of SOV parked on campus
* Average fuel efficiency of campus fleet per class of vehicle
* Number of covered bike parking areas
* Number of indoor and secure bicycle parking in residence halls
* Carbon footprint of campus transportation

**WASTE**

Goal 1: Eliminate landfilling of food waste

Goal 2: Significantly increase the rate of recycling

Goal 3. Campus procurement should support sustainability goals

Examples of *short term* strategies:

* + - Recycle 90% of campus construction and demolition waste
    - Create campus food waste composting program
    - Participate in Recyclemania competition
    - Develop online durable goods catalogue

Examples of *long term* strategies:

* + - Impose campus ban on bottled water for non-emergency/health use
    - Begin recycling of glass and wood, and raise diversion rates of all other materials
    - Establish and apply guidelines to give preference to products with low carbon footprints and consideration for life cycles of durable goods when awarding all contracts for goods and services

Potential metrics:

* Total waste generated on campus
* Overall recycling rate
* Recycling rates for commonly recycled material types (e.g. paper, aluminum, etc.)
* Recycling rate for construction and demolition waste
* Expenditures on bottled water
* Tons of food waste composted
* Carbon footprint of university procurement

**WATER**

Goal 1: Do not use, treat or process water unnecessarily, including packaging

Goal 2: Do not discharge storm water in excess of natural flows

Goal 3: Do not pollute water or allow water to be a vehicle for pollution transmission

Examples of *short term* strategies:

* Do not irrigate with potable water
* Eliminate the use of once-through water cooled equipment on campus
* Develop a storm water collection, retention and use plan for impervious campus surfaces, including buildings

Examples of *long term* strategies:

* Construct bioswales to mitigate the impacts of parking lot runoff
* Install permeable pavements as pavements are replaced
* Reduce the amount of turf grass on campus

Potential metrics:

* Total campus processed water consumption
* Annual potable water consumption for irrigation
* Inventory of once-though water cooled equipment on campus
* Number of buildings having comprehensive storm water collection, retention and use plans
* Number of units of bottled water purchased by campus units
* Area of installed permeable pavements
* Surface area runoff mitigated by bioswales
* Number of procurement policies that positively impact these goals and strategies