Council members present:
Robert M. Specter, Vice President for Administrative Affairs & CFO (Chair)
Linda Clement, Student Affairs
Mahlon Straszheim, Associate Provost, Academic Affairs
Steve Hutcheson, Professor of Cell Biology & Molecular Genetics
Scott Lupin, Associate Director, Environmental Safety and Director, Office of Sustainability
Joan Kowal, Energy Manager, Facilities Management
Jay Elvove, Manager, OIT
Bryan Quinn, Director of Technical Operations, Department of Electrical and Computer Engineering
Monette Bailey, Senior Writer/Editor, University Relations
Ian Page, Graduate Student, Agriculture and Resource Economics
Matthew Popkin, Undergraduate Student, Government and Politics

Guests:
Kimberlee Robertella, Program Manager, Center for Social Value Creation

Meeting start time: 10:00 am

Meeting Highlights

**Sustainability Metrics Report, Greenhouse Gas Inventory, STARS and establishing Council Priorities**

Sally DeLeon, Measurement Coordinator in the Office of Sustainability, presented findings from the 2010 *Sustainability Metrics Report*. This was followed by a comparison between the Metrics Report and the Greenhouse Gas inventory. Finally, our performance using the STARS rating system was presented and compared to data included in the Metrics Report and the Greenhouse Gas Inventory. Based on these three reports, the OS recommended possible Council priorities for the years 2011-2014.

Mark Stewart, Manager in the Office of Sustainability, presented a strategy on how to address the recommended Council priorities. The centerpiece of the strategy is the creation of workgroups that would focus on the following issues:

- Sustainable Buildings and Energy Sources
- Sustainable Water Use and Watershed Protection
- Education for Sustainability
- Research for Sustainability
- Sustainable Transportation
- Sustainable Food Systems
- Sustainable Waste Management
- Sustainable College Park
The full presentation is included in Appendix A.

**Discussion**

- **Goal Setting**
  - Rob Specter thanked the Office of Sustainability for its review of the metric systems and turned the conversation to the Council. He encouraged the Council to be broad minded in its discussion. He said STARS is important and helpful but we should stay focused on the unique qualities of the University. We should consider how our status as a research university gives us the opportunity to tap into the knowledge and research of the faculty.
  - Scott Lupin stated that we have been picking at low hanging fruit but we need to move on to higher, harder to reach issues. There are many big issues to address and lot of people need to be involved. Scott supports development of the workgroups because they pull in other experts and views. They also allow the University to address big issues outside of the campus, such as how to support the State’s k-12 teachers in meeting the new Environmental Literacy Standard.

- **Transportation**
  - Matthew Popkin liked the proposed workgroups and recommended initiating the Sustainable Transportation workgroup this winter along with Sustainable Buildings and Energy Sources, Sustainable Water Use and Watershed Protection, Education for Sustainability, and Research for Sustainability. He said there are many timely transportation issues to address, especially the construction of new garages.
  - Linda Clement agreed that the transportation workgroup should begin sooner than later since it’s very timely and DOTS would welcome the help. The workgroup may be able to identify a new business model for transportation services that supports sustainability goals.
  - Bryan Quinn said the University does not do enough to promote alternative transportation.

- **Education and Research**
  - Mahlon Straszheim said we can make major progress on education and research. He said we could easily count the courses and research projects related to sustainability (and STARS) and do a better job of communicating about them. The new Gen Ed i-series courses present a huge opportunity for faculty to create courses the address environmental and sustainability issues. We need to engage the faculty in the process.
  - Scott Lupin said the University might create something like a Center for Environmental Literacy to support the State’s current and future k-12 teachers in their effort to integrate environmental education across the curriculum, which is a new requirement recently passed by the State Board of Education.
  - Rob Specter said he likes the idea and it could be created as a certificate program.

- **Carbon Neutrality**
  - Joan Kowal said the University System of Maryland (USM) is wrestling with the challenge of growing the physical campus while pursuing carbon neutrality. They are talking about a carbon-neutral policy but don’t want to dictate to schools. They are interested in seeing capital project partnered with carbon neutral projects and would be supportive of programs costing a little more. UMD could show leadership and drive the conversation about policy.
• Economics
  o Steve Hutcheson said we need money to develop good ideas in the real world, including on campus. Economics is a driver of getting business investment. Create economic incentives and use these to drive progress. Ensure workgroups focus on economics so that actions can get implemented.
  o Matthew Popkin agreed that the economic case is important, but that we need to look at multiple aspects and values besides economics. Other drivers include education and culture change.
  o Steve said he likes STARS because of the breakdown of categories and emphasis on education but UMD needs to show the economic impact of our decisions. Success in the state will not be shown by environmental success; it will be shown by economics. You can sell economic savings or benefits.
  o Rob Specter stated that each workgroup should take a policy approach, economic approach, and education approach. These are not mutually exclusive and every program needs to consider all three.
• College Park
  o Rob Specter said it is important to think about our connection to the whole College Park community and that perhaps instead of having a Sustainable College Park Workgroup; each of the other workgroups should integrate a mission of finding connections with College Park through their work. We may even expand our scope of work to include other local communities including Greenbelt, University Park, etc.
• New Research Space
  o Bryan Quinn suggested that the University create rooftop research space to support student and faculty research projects (green roofs, solar technology, etc.). He has submitted a proposal to create such a space on the roof of AV Williams.

ACTION – Rob Specter asked all Council members to email their ranked preferences for workgroup assignments. The Office of Sustainability will send out the entire presentation so that people know what is encapsulated within each work group.

University House – Joan Kowal
• Want this centrally focused and privately funded house/event center to be a showcase of sustainable measures that we are pursuing on campus:
  o Use of geothermal heat pumps is being pursued. The facility is not on UM’s steam distribution system so this is a good place to use this technology. $150,000
  o Solar hot water heating. Good for using with special event features of the building. $26,000
  o Considering solar PV array. 5 – 10 kW range. $130,000
The project is going to the Finance Committee within the next few weeks and believes UM should make some technology investments at this site to demonstrate the University’s commitment to sustainability and not have the decision to proceed based solely on economics. Joan requested endorsement from the Council that the project demonstrates new sustainable technologies on campus. The Council passed a motion that these technologies be part of the facility.
Updates:

Matthew Popkin bottled water proposal:
- Matthew presented a proposal regarding bottled water on campus.
- This is not a water issue but rather a behavior change issue.
- Proposes to prohibit university funds in academic and administrative offices for the purchase of bottled water.
- Date of implementation can be discussed and revised.
- Addressed at our next meeting.

Ian Page on grad student sustainability committee:
- Graduate student body established a temporary grad student sustainability committee for one year. Hopefully this can become a permanent committee.

Sustainability Fund:
- 28 proposals were received

Adjourned at 12:12 pm
Gap Analysis to Establish Direction

UNIVERSITY OF MARYLAND OFFICE OF Sustainability

RECOMMENDED COUNCIL PRIORITIES
24 Measurable Indicators
Developed with Stakeholder Input

CAMPUS
Developing a carbon-neutral and resource-efficient infrastructure
8 Metrics

CULTURE
Fostering environment where students, faculty, staff and visitors are empowered to practice sustainability through everyday behaviors and interactions
10 Metrics

CURRICULUM
Integrating sustainability across disciplines and addressing sustainability challenges through research
3 Metrics

COMMUNITY
Engaging people in the surrounding region and the world in sustainability through outreach and service, training and alumni connections
3 Metrics (two are new this year)
### Sustainability Metrics Report

#### CAMPUS: Sustainable Infrastructure and Operations

<table>
<thead>
<tr>
<th>Metric</th>
<th>2008</th>
<th>2009</th>
<th>Trend</th>
<th>2010</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse Gas (GHG) Emissions (MT-CO₂e)</td>
<td>309,997</td>
<td>283,480</td>
<td>251,956*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHG Emissions per Capita (MT-CO₂e/person)</td>
<td></td>
<td>6.8</td>
<td>6.0*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHG Emissions per Area (kg-CO₂e/sq. ft.)</td>
<td></td>
<td>14.9</td>
<td>11.7*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity Consumption (MWh)</td>
<td>261,978</td>
<td>252,536</td>
<td>259,092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity Consumption per Capita (MWh/person)</td>
<td>6.04</td>
<td>6.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity Consumption per Area (kWh/sq. ft.)</td>
<td>19.24</td>
<td>19.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam Consumption (MLbs)</td>
<td>720,674</td>
<td>695,231</td>
<td>681,480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam Consumption per Capita (MLbs/person)</td>
<td>16.63</td>
<td>16.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam Consumption per Area (Thousands lbs/sq. ft.)</td>
<td>52.98</td>
<td>50.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable Water Consumption (kgal)</td>
<td>512,049</td>
<td>470,752</td>
<td>511,635</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable Water Consumption per Capita (kgal/person)</td>
<td>11.26</td>
<td>12.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable Water Consumption per Area (kgal/sq. ft.)</td>
<td>35.87</td>
<td>38.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Potable Water Use (gallons)</td>
<td>N/A</td>
<td>25,000</td>
<td>N/A</td>
<td>36,000</td>
<td></td>
</tr>
<tr>
<td>Green Cleaning (percent)</td>
<td>see report</td>
<td>see report</td>
<td>see report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainable Food (percent)</td>
<td>N/A</td>
<td>11</td>
<td>N/A</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Composted Food Waste (tons)</td>
<td>212</td>
<td>145</td>
<td></td>
<td>138</td>
<td></td>
</tr>
</tbody>
</table>
Steam consumption is decreasing as a result of energy conservation efforts, including the Energy Performance Contract, and the Policy on Building Temperature.
Campus growth is outstripping electricity and non-CHP natural gas conservation measures.

Total GHG Emissions

- 2012: 273,312 MT-CO₂e
- 2015: 241,158 MT-CO₂e
- 2020: 160,772 MT-CO₂e
- 2050: Net-Zero

Additional building space and increasing air travel undermine GHG emission reduction efforts.
Potable water consumption increased this year. Reasons for the increase are not clear. There are many opportunities for reuse of greywater and capture stormwater on campus.
# Sustainability Metrics Report

<table>
<thead>
<tr>
<th>CULTURE: Sustainable Behaviors</th>
<th>2008</th>
<th>2009</th>
<th>Trend</th>
<th>2010</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling Rate (percent)</td>
<td>45.8</td>
<td>57.4</td>
<td></td>
<td>62.8</td>
<td></td>
</tr>
<tr>
<td>Non-Hazardous Solid Waste Generated (tons)</td>
<td>12,154</td>
<td>12,950</td>
<td>FAIL</td>
<td>14,229</td>
<td>FAIL</td>
</tr>
<tr>
<td>Hazardous Waste Generated (pounds)</td>
<td>83,878</td>
<td>51,173</td>
<td></td>
<td>85,218</td>
<td></td>
</tr>
<tr>
<td>Copy Paper Use (reams)</td>
<td>220,051</td>
<td>148,349</td>
<td></td>
<td>127,361</td>
<td></td>
</tr>
<tr>
<td>Students Living On and Near Campus (percent)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>73</td>
<td>N/A</td>
</tr>
<tr>
<td>Faculty/Staff Living Near Campus (percent)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Commuting Distance of Faculty, Staff, and Students (miles)</td>
<td>15, 16.3, 16.6</td>
<td>15, 16.3, 16.1</td>
<td>FAIL</td>
<td>13.2, 15, 17.3</td>
<td>FAIL</td>
</tr>
<tr>
<td>Alternative Transportation (percent)</td>
<td>47.9</td>
<td></td>
<td></td>
<td>57.6</td>
<td></td>
</tr>
<tr>
<td>Registered Bikes on Campus (count)</td>
<td>280</td>
<td>910</td>
<td></td>
<td>1630</td>
<td></td>
</tr>
<tr>
<td>Shuttle-UM Rides (million rides)</td>
<td>2.34</td>
<td>2.60</td>
<td></td>
<td>2.70</td>
<td></td>
</tr>
</tbody>
</table>
A cultural shift toward sustainable use of office supplies and sustainable commuting choices has begun.

Students are shifting to alternative modes of transportation, whereas faculty and staff are maintaining the status quo.
Total amount of waste generated by the campus has increased for the last three years. The increase is related to the growing campus population.

Widespread participation in recycling has allowed the campus to reduce the amount of waste sent to landfills.
Sustainability Metrics Report

<table>
<thead>
<tr>
<th>CURRICULUM: Sustainability Education (and Research)</th>
<th>2008</th>
<th>2009</th>
<th>Trend</th>
<th>2010</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses Revised to Include Sustainability (count)</td>
<td>0</td>
<td>34</td>
<td></td>
<td>57</td>
<td>🍀</td>
</tr>
<tr>
<td>Faculty Participants in The Chesapeake Project</td>
<td>N/A</td>
<td>26</td>
<td>N/A</td>
<td>50</td>
<td>🍀</td>
</tr>
<tr>
<td>(count)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year Sustainability Education (percent)</td>
<td>9</td>
<td>17</td>
<td></td>
<td>22</td>
<td>🍀</td>
</tr>
<tr>
<td>Co-Curricular Education (count)</td>
<td>8</td>
<td>8</td>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Curriculum and Community metrics are not comprehensive. UMD’s impacts are elusive.

<table>
<thead>
<tr>
<th>COMMUNITY: Engaging the Greater Community in Sustainability</th>
<th>2008</th>
<th>2009</th>
<th>Trend</th>
<th>2010</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Community Service Participation (percent)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>58.9</td>
<td>N/A</td>
</tr>
<tr>
<td>Student and Alumni Green Businesses and Non-Profits (count)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>8</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Education and Outreach Programs (count)</td>
<td>57</td>
<td>57</td>
<td></td>
<td>58</td>
<td></td>
</tr>
</tbody>
</table>
When trends for all of UMD’s Sustainability Metrics are assessed together, there is more positive than negative.

*Culture* is the area that showed the most positive progress in 2010.

*Campus* is the area where the greatest number of concerns were identified.

Progress or change in the *Community* area is not clear.

Progress in the *Curriculum* area resulted from Office of Sustainability programs.
Sustainability Metrics: Identified Priorities

- Campus Growth: GHG Emissions & Electricity Use Impacts
- Potable Water Consumption
- Solid Waste Generation
- Incomplete Assessment of Curriculum & Research
UMD Climate Action Plan Status

Operations

- On track
- Complete or almost complete
- Little or no progress

Education & Research

- Revision may be needed

Policies

- Research underway
Projected Impacts of UMD CAP Mitigation Strategies

- Fiscal Year
- MTCO2e

Offset Categories:
- Other Offsets
- Solid Waste-related Offsets
- Transportation-related Offsets
- Energy-related Offsets

Strategies:
- Solid Waste
- Virtual Meetings
- Hybrid Shuttle UM
- Electric Vehicles
- E85 Fleet
- Faculty/Staff Telecommuting
- Improved Commuter Fuel Efficiency
- Commuter Mode Switching
- 50% Nuclear
- 15% Large Hydro
- MD Renewable Portfolio Standard
- PVs on UM Flat Roofs (Pilot)
- AV Williams PVs
- Biofuel CHP
- Virtual Servers
- EPA Computer Energy Star Settings
- Thin Client
- Behavior Modification
- ESCO Retrofits
- Total 2005 MTCO2e baseline
- C Neutrality Timeline
- Actual GHG Emissions
- GHG Emissions w/offsets
Climate Action Plan Priorities

• Implementation Plan and Responsible Parties
• Carbon Neutral New Construction Policy and Implementation Plan
• Close the Gap between 2020 Target and Current Strategies
• Ownership and Targets for Education Strategies
• Ownership and Targets for Research Strategies
• Improve Measurement of Transportation Strategies
• Telecommuting and Virtual Meetings
• Research on Carbon Offset Options for Transportation
• Campus Petroleum Fuel Reduction Goal
• Assess Financing Options for Alternative Transportation
• External Policy Advocacy
• Student Projects to Advance Campus Carbon Neutrality
Climate Action Plan Priorities

- Implementation Plan and Responsible Parties
- Carbon Neutral New Construction Policy and Implementation Plan
- Close the Gap between 2020 Target and Current Strategies
- Ownership and Targets for Education Strategies
- Ownership and Targets for Research Strategies
- **Improve Measurement of Transportation Strategies (OS & DOTS)**
- **Telecommuting and Virtual Meetings (Green Office Program)**
- Research on Carbon Offset Options for Transportation
- Campus Petroleum Fuel Reduction Goal
- Assess Financing Options for Alternative Transportation
- External Policy Advocacy
- Student Projects to Advance Campus Carbon Neutrality
C.A.P.

Metrics

Implementation
Air Travel
Faculty & Staff
Commuting
External Policy Advocacy

Potable Water
Solid Waste

Carbon and Energy Impact of Campus Growth
Energy Sources & Building Efficiency
Curriculum & Research Strategy Management
The STARS Program

AASHE’s Sustainability Tracking, Assessment & Rating System

stars.aashe.org
What is STARS?

- **Sustainability Tracking, Assessment, and Rating System**
- A **voluntary, self-reporting** framework
- A **guide** for advancing sustainability in all sectors of higher education.
- A common **standard of measurement** for sustainability in higher education.
- A tool that promotes a comprehensive understanding of sustainability that includes its **social, economic and environmental** dimensions.
STARS Credit Categories/Sub-Categories

• **Education & Research**
  - Co-Curricular Education; Curriculum; Research

• **Operations**
  - Buildings; Climate; Dining Services; Energy; Grounds; Purchasing; Transportation; Waste; Water

• **Planning, Administration & Engagement**
  - Coordination & Planning; Diversity and Affordability; Human Resources; Investment; Public Engagement

• **Innovation**
  - Recognize creative and innovate strategies implemented on campuses; Areas where a campus has exceeded credit criteria
# STARS Ratings

<table>
<thead>
<tr>
<th>Rating Level</th>
<th>Minimum Score Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>STARS Bronze</td>
<td>25</td>
</tr>
<tr>
<td>STARS Silver</td>
<td>45</td>
</tr>
<tr>
<td>STARS Gold</td>
<td>65</td>
</tr>
<tr>
<td>STARS Platinum</td>
<td>85</td>
</tr>
<tr>
<td>STARS Reporter</td>
<td>For institutions that wish to use STARS and submit data publicly but are not pursuing a rating</td>
</tr>
</tbody>
</table>
Overlap Between UMD Sustainability Metrics and S.T.A.R.S.
STARS Operations Credits for which the Office of Sustainability currently collects data to publish UMD Sustainability Metrics
UMD's Performance on STARS
Operations Credits

TOTAL: 40.42/100
UMD's Performance on STARS
Planning, Administration & Engagement Credits

TOTAL: 52.46/100
UMD's Performance on STARS
Education & Research Credits

TOTAL: 28.99/100
With some additional data collection...

UMD would achieve a Silver STARS Rating
STARS Credits with the most Significant Room for Improvement

OPERATIONS
• Waste Reduction
  • Reduce total amount of solid waste generated (recycling is not enough)
• Renewable Energy Generation and Procurement
  • On-Campus Sources and Power Purchase Agreements
  • Certified Renewable Energy Certificates (RECs) as stop gap measure
    • each kWh from a REC is worth one quarter of a true kWh
• Greenhouse Gas Emissions Reduction
  • Carbon neutrality is ultimate STARS goal
  • RECs do not count as negative emissions
  • Local offsets count more heavily than purchased third-party certified offsets
• Building Design & Construction
  • LEED Certification for greater percentage of campus buildings
  • Platinum LEED Certification where possible
• Building Energy Consumption
  • Financing for more energy conservation measures
  • LEED for Existing Buildings, including re-commissioning
  • Method to stop campus growth from undercutting energy conservation efforts
• Sustainable Food Purchasing
  • Procurement of more local, organic and fair-trade certified food
STARS Credits with the most Significant Room for Improvement

PLANNING, ADMINISTRATION & ENGAGEMENT

• Sustainability Plan
  • Overarching Vision and Strategic Plan with Goals for all areas

• Human Resources
  • Basic Needs/Living Wage Assessment in Salary and Benefits structuring
  • Employee Satisfaction Evaluation
  • Staff Professional Development in Sustainability

• Investment of Endowment Funds
  • Deeper investment in sustainability investment funds
  • Restructuring of USM investment strategies to include direct investment in sustainable companies
    • which develop products and services to address sustainability challenges or exhibit exemplary sustainability performance.
  • Investment in Community Development Financial Institutions
  • Multi-Stakeholder Committee on Socially Responsible Investment
    • that would make recommendations to the USM Foundation on socially and environmentally responsible investing opportunities across asset classes.

• Student Community Service Hours
  • STARS sets a goal of approximately 20 hours per student per year; In 2010, UMD average was 3.8 hours per student per year
**STARS Credits with the most Significant Room for Improvement**

**EDUCATION & RESEARCH**

- **Sustainability Course Identification and Inventory**
  - Faculty-approved definitions of *sustainability-focused courses* and *sustainability-related courses* *
  - List of *sustainability-focused* and *related* courses by department
  - Identification and count of *sustainability learning outcomes* by degree

- **Sustainability Research Identification and Inventory**
  - Faculty-approved definition of *sustainability research* *
  - List of faculty members who conduct sustainability research
  - List of departments that conduct sustainability research

- **Sustainability Research Incentives**
  - Ongoing program to encourage students in multiple academic programs to conduct sustainability research
  - Ongoing program to encourage faculty from multiple disciplines to conduct sustainability research

*Without these definitions, the Office of Sustainability cannot accurately calculate UMD’s overall performance on STARS.*

**PLANNING, ADMINISTRATION & ENGAGEMENT**

- **Sustainability in Continuing Education**
  - Count of non-credit sustainability-focused and *related* courses
  - Count of total number of non-credit courses
  - Sustainability-related certificate program through extension
Sustainability Visioning →

3 year goals

5 year goals

10 year goals

Sustainability Plan

C.A.P.

Metrics

STARS

Specific
Measurable
Attainable
Realistic
Time Limited
Recommended UMD Sustainability Council Priorities: 2011-2014

Top-Tier Priorities

Campus (with potential for roles for Culture, Community and Curriculum)

- Develop and implement strategy to neutralize carbon impact of added building space
- Refine renewable energy procurement strategy in line with CAP 2020 target
- Establish green revolving loan fund for energy conservation measures
- Explore other financing models for energy conservation measures
- Investigate carbon offset project options for air travel, commuting and purchased electricity
- Develop strategies to reduce potable water consumption and expand the reuse of stormwater and greywater

Curriculum and Research

- Establish comprehensive approach for tracking sustainability integration across curriculum
- Develop and implement broader strategy for increasing integration of sustainability into the curriculum
- Establish approach for tracking sustainability research and communicating with involved faculty
- Explore opportunities to provide incentives to increase student and faculty sustainability research
- Investigate opportunities to support State Environmental Literacy Standard for k-12

Culture, Community, Curriculum and Campus

- Sustainability Vision for 2020
- Strategic Sustainability Plan with SMART Goals and Targets
- Establish and Communicate Implementation Roles/Responsibilities for Climate Action Plan Strategies
Recommended UMD Sustainability Council Priorities: 2011-2014

Second-Tier Priorities

**Campus and Culture (with potential for role for Curriculum)**
- Develop a sustainable financing model for alternative transportation programs
- Identify barriers to faculty and staff use of alternative transportation
  - Work with DOTS to develop programs to remove and reduce barriers
- Identify barriers to reduction of the amount of waste generated on campus
  - Work with divisions to develop programs to reduce waste generation
  - Develop waste reduction/diversion policy

**Community and Culture (with potential role for Curriculum)**
- Decide whether to report publicly and pursue a rating through AASHE’s STARS Program
- Develop strategy to increase availability of local and organic foods at larger scale needed for UMD
- Explore opportunities for deepening sustainability partnership with College Park

**Curriculum and Research**
- Re-evaluate education and research strategies in the Climate Action Plan
  - Revise as appropriate
Whoa!

What do we do with all this information?
Proposed Work Groups

Spring 2012:

• Sustainable Buildings and Energy Sources
• Sustainable Water Use and Watershed Protection
• Education for Sustainability
• Research for Sustainability

Fall 2012:

• Sustainable Transportation
• Sustainable Food
• Sustainable Waste Management
• Sustainable College Park
Proposed Work Groups

Spring 2012:

- **Sustainable Buildings and Energy Sources**
  - *Short-term:*
    - Draft carbon neutral new buildings policy.
    - Create timeline and strategies for transitioning to renewable energy.
    - Investigate carbon offset projects.
    - Research new financing options for continuing to implement energy conservation measures on a wide scale in campus buildings.
    - Consider creating a Green Revolving Loan Fund.
  - *Long-term:*
    - Seek innovative solutions to provide 100% of campus power needs from renewable resources while campus power demand may double between now and 2050.
    - Seek mutually-beneficial, synergistic relationships between the campus’s energy, food, water, and waste systems.
Proposed Work Groups

Spring 2012:

• Sustainable Buildings and Energy Sources

• Sustainable Water Use and Watershed Protection
  • Short-term:
    • Investigate campus use of potable water.
    • Seek ways to use reclaimed water (ex. Flushing toilets, irrigating edible and non-edible landscapes, etc.).
    • Create strategy for reducing potable water consumption.
  • Long-term:
    • Seek innovative solutions to capture the rain that falls on campus and put it to productive use.
    • Reduce potable water consumption to sustainable levels.
    • Investigate opportunities to use wastewater as energy source.
Proposed Work Groups

Spring 2012:

• **Sustainable Buildings and Energy Sources**
• **Sustainable Water Use and Watershed Protection**
• **Education for Sustainability**
  • *Short-term:*
    • Assess current sustainability education initiatives.
    • Evaluate STARS Education strategies for UMD application.
    • Develop and refine plan to educate all students about sustainability.
    • Support the State’s k-12 Environmental Literacy policy.
  • *Long-term:*
    • Seek innovative solutions to turn the campus and surrounding community into a living laboratory for sustainability where all students have the opportunity to expand their learning while addressing current sustainability challenges.
    • Prepare all students to take an active role in the paradigm shift to sustainability.
Proposed Work Groups

Spring 2012:

• Sustainable Buildings and Energy Sources
• Sustainable Water Use and Watershed Protection
• Education for Sustainability

• Research for Sustainability
  • Short-term:
    • Assess current sustainability research initiatives.
    • Evaluate STARS Research strategies for UMD application.
    • Encourage interdisciplinary research projects.
    • Develop communication strategy for sustainability-related research.
  • Long-term:
    • Create a research environment that encourages interdisciplinary collaboration on projects with high social and ecological value.
    • Seek opportunities for research to advance operational sustainability on campus.
Proposed Work Groups

Fall 2012:

• **Sustainable Transportation**
  • *Short-term:*
    • Develop a new DOTS business model that is in sync with their sustainability goals.
    • Develop programs with DOTS to increase faculty/staff use of alternative transportation.
    • Address increasing air travel emissions.
    • Develop plan to reduce fleet fuel consumption.
  • *Long-term:*
    • Seek innovative solutions to develop and encourage a carbon neutral transportation system for all faculty, staff, and student commuters.
    • Seek innovative solutions to reduce air travel emissions.
Proposed Work Groups

Fall 2012:

• Sustainable Transportation

• Sustainable Food
  • Short-term:
    • Explore opportunities to source more local food, especially from Maryland farms.
    • Calculate cost/benefit of purchasing certified sustainable food.
    • Bring cohesion to campus food gardens through the Arboretum.
  • Long-term:
    • Seek innovative solutions to find synergy between the University of Maryland Extension (UME), local farmers, campus gardens, and Dining Services to develop a model of sustainable agriculture.
Fall 2012:

- Sustainable Transportation
- Sustainable Food
- **Sustainable Waste Management**
  - *Short-term:*
    - Develop waste reduction strategy for campus.
    - Develop waste diversion goal beyond 75% by 2013.
    - Design campus-wide composting program.
    - Work with contractors to reduce construction/demolition waste.
  - *Long-term:*
    - Seek innovative solutions to close the loop on material flows.
Fall 2012:

- Sustainable Transportation
- Sustainable Food
- Sustainable Waste Management
- **Sustainable College Park**
  - *Short-term:*
    - Develop a shared City/University Vision for a Sustainable College Park.
    - Increase opportunities for students to get involved in local community service projects.
  - *Long-term:*
    - Transition College Park into a community where faculty, staff, students, and other residents happily live in mixed-use, mixed-income neighborhoods with easy access to public transportation, safe pedestrian pathways, and excellent schools.
Timeline and Process

- Work Group Formation (Spring/Fall 2012)
- Visioning (Fall 2012)
- Strategic Sustainability Plan (Fall 2013?)
- Implementation & Evaluation (Continual)