

Sustainability and Environmental Management Systems at UVA



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UVA at a Glance

- 10 Schools on Grounds



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- Business Operations



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- Athletics



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- 10 Schools on Grounds
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- Athletics
- Health System



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- Athletics
- Health System
- Facilities Management



UVA at a Glance

- 10 Schools on Grounds
- Business Operations
- Athletics
- Health System
- Facilities Management
- Satellite and research locations



EMS = Environmental Management System

- Ensure Environmental Compliance
- Reduce Environmental Impacts (Sustainability)



www.ehs.virginia.edu/ems

EMS Implementation

- Started in 2004
 - Permission and Policy
- Facility by facility approach
 - Parking and Transportation
- Executive Order 82
 - University wide EMS



UVA's Environmental Policy

- Meet and exceed (where practical) compliance with all State and Federal environmental regulations.
- Prevent and reduce pollution on University property and prevent University activities from polluting the local environment.
- Minimize to the greatest extent practicable the use of toxic substances on University property and seek alternatives to such products where available. Where the use of toxic substances cannot be avoided, the substances will be managed to avoid human exposure and releases to the environment.



UVA's Environmental Policy

- Encourage continued participation in recycling and waste reduction programs.
- Conduct education and research in an environmentally responsible way.
- Continually strive to reduce the University's impact on the natural environment.
- Strive to decrease energy demands through increased energy efficiency and conservation.
- Where practical, utilize best management practices in design, construction, and maintenance of its University facilities.



Fenceline Approach – Why?



- UVa Decentralized
 - Departments operate independently
 - Have own budget, policies, etc.
- University-wide approach too broad
 - Not specific enough to capture unique impacts
 - No department ownership = less incentive to participate



Strengths

- Aspects and Impacts, Objectives and Targets, tailored to specific departments
- Write detailed SOPs for each department
- Department staff involved in implementation process
- Provides for a more detailed evaluation of operations





Weaknesses



- Slow
- Time intensive for EHS staff with other responsibilities
- Department staff can be slow to assume ownership of the EMS
- Different parts of the University at different stages or not involved at all



Hoo's "In"



- Business Operations

- Parking and Transportation
- Dining
- Housing
- All others

- Environmental Health & Safety

- Facilities Management

- Energy and Utilities
- Business Operations

- Athletics

- Athletics
- Intramural Recreational Sports

- Hoo's Next: Academic departments with labs, Medical School, Hospital – also UVa wide



EMS = Sustainability

What have we accomplished?



A GREENER GROUNDS

SUSTAINABILITY *at the* UNIVERSITY of VIRGINIA

- 2006 Sustainability Assessment
- LEED
- Sustainability Project Appraisal Routine (SPeAR) Assessment
- Greenhouse Gas Inventory
- 2008 President's Committee on Sustainability



WHAT U.VA. IS DOING: GREEN AT U.VA.

Parking and Transportation





Environmental Compliance - Facility Upgrades



Transportation Demand Management

- GPS bus locator system
- Bus partnership with Charlottesville
- CavPool
- Occasional Parker Program
- Bike Map
- Outreach Activities
- Car Sharing



Dining Green Dining Committee

- Students, faculty, staff
 - Environmentally friendly purchasing decisions for Dining
- Local
- Seasonal
- Organically Grown
- Humanely Raised
- Fairly Traded
 - 11.4% of purchases in 2007
 - 15% of purchases in 2008
 - Goal – 20%



Sustainability Event



Trayless Dining



Food Waste Audits

- Uneaten food = waste
 - Smaller portions when asked
 - Student education and awareness
- 25% reduction in food waste since trays removed



Composting



Reusable To-Go Containers



Tradeoffs: Water vs. Waste



Reusable Shopping Bags – Dining and Energy and Utilities



WHAT U.VA. IS DOING: GREEN AT U.VA.

Facilities Management

- Water conservation
 - Stormwater management
 - Mandate low flow fixtures
- Energy conservation
 - Occupancy sensors
 - CFLs
 - Building dashboards
- Recycling
 - Almost 40% diversion rate
 - Many outreach initiatives as part of UVa Energy and Utilities Sustainability Programs



Motion Sensors



Education and Reminders



Reminders are a good thing!!



Making it easy to make the right choice



WHAT U.VA. IS DOING: GREEN AT U.VA.

Students – Energy and Utilities Sustainability

- Conservation Advocacy Program
 - All first year dorms
 - Upperclass dorms
 - Weekly tabling outside dining halls
- Chuck it for Charity
- America Recycles Day
- Dorm Energy Challenges
- Recyclemania
- Claim Your Can Contest



Sharing Your Achievements



Virginia Environmental Excellence Program (VEEP)



- E2- Environmental Enterprise
 - Parking and Transportation
 - Dining
 - Housing
 - Environmental Health & Safety
- Aim to group like departments together for future applications
 - Fewer reports to produce annually
- Currently conducting audits to apply for E3 level



Executive Order 82 – June 2009

- By July 1, 2010 - “notify the DEQ of intent to develop an EMS” or adopt “policies regarding energy use, water use, waste reduction, and travel that will reduce the environmental impacts of those activities.”
 - Those who develop an EMS shall achieve E2 or higher certification in VEEP by July 1, 2011
 - Specific details on DEQ VEEP Website
http://www.deq.state.va.us/p2/EO_82.html



New Strategy

- Continue facility approach
 - Those already implemented
 - Those that have significant impacts (ex. labs)
 - Hospital, Med School, etc.
- UVa-wide EMS
 - Policies that apply to everyone
 - Recycling, conservation, purchasing
 - Objectives and Targets from Sustainability Committees – already happening



The End

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