

Ad Hoc Recycling Committee of the Graduate Student Senate Report on:

The State of Recycling at the University of Delaware



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BACKGROUND:

The Recycling Committee was officially formed by a unanimous vote of the Graduate Student Senate (GSS) at the October 4th, 2007 general meeting. At that time, there were growing concerns both inside the GSS and in the graduate student body at large that the University of Delaware was not adequately addressing issues concerning recycling efforts and other sustainability issues. Although members of the GSS stressed the importance of addressing wider sustainability concerns, the committee decided that recycling was a good starting point issue because policy changes are relatively inexpensive, easy to implement, widely accepted, and have the potential for dramatic results in a short period of time.

The GSS was also aware of the Faculty Senate Ad Hoc Committee (FSAHC) on Recycling Report completed in 2005, which had compared recycling at the University of Delaware (UD) to that at other major universities. This report confirmed that the recycling program at UD was far behind the more comprehensive and aggressive recycling programs of its peers. In 2005, the FSAHC reported that the University already had a recycling program that recycled approximately 19% of the solid waste stream. As a two year long-term goal, the committee recommended a goal of recycling 30% of our solid waste stream. This goal was based upon other universities' activities and the level proposed by Delaware's Governor Minner for the recycling of household solid waste statewide. The FSAHC recommended that a recycling manager be appointed and charged with determining cost-effective ways of achieving this goal and to report to the Faculty Senate on progress towards recycling goals.

With this in mind, the GSS Recycling Committee was formed by the GSS with the charge of investigating the state of recycling; informing the GSS, administration, and larger UD community of issues surrounding recycling; and influencing policy changes to improve the state of recycling at UD. The GSS Recycling Committee soon became aware of President Harker's Sustainability Task Force and attempted to network and partner with this body, recognizing our shared goals. Other relationships were forged with Students for the Environment (S4E), who kindly volunteered their members' time to assist with building surveys. The GSS Recycling Committee learned that UD acquired a \$62,000 gift from the 2007 graduates to be used to improve the state of recycling on campus. In addition, a March 18, 2008 Review article reported that the class gift of 2008 will fund the advancement of sustainability efforts on campus. Thus both gifts highlighted the concerns and desires for the 2007 and 2008 graduates to improve the sustainability efforts here at UD. Now, with the support of University of Delaware community members, it is our opportunity to make a collaborative push to achieve our sustainability goals.

ANALYSIS OF RECYCLING IN CAMPUS BUILDINGS:

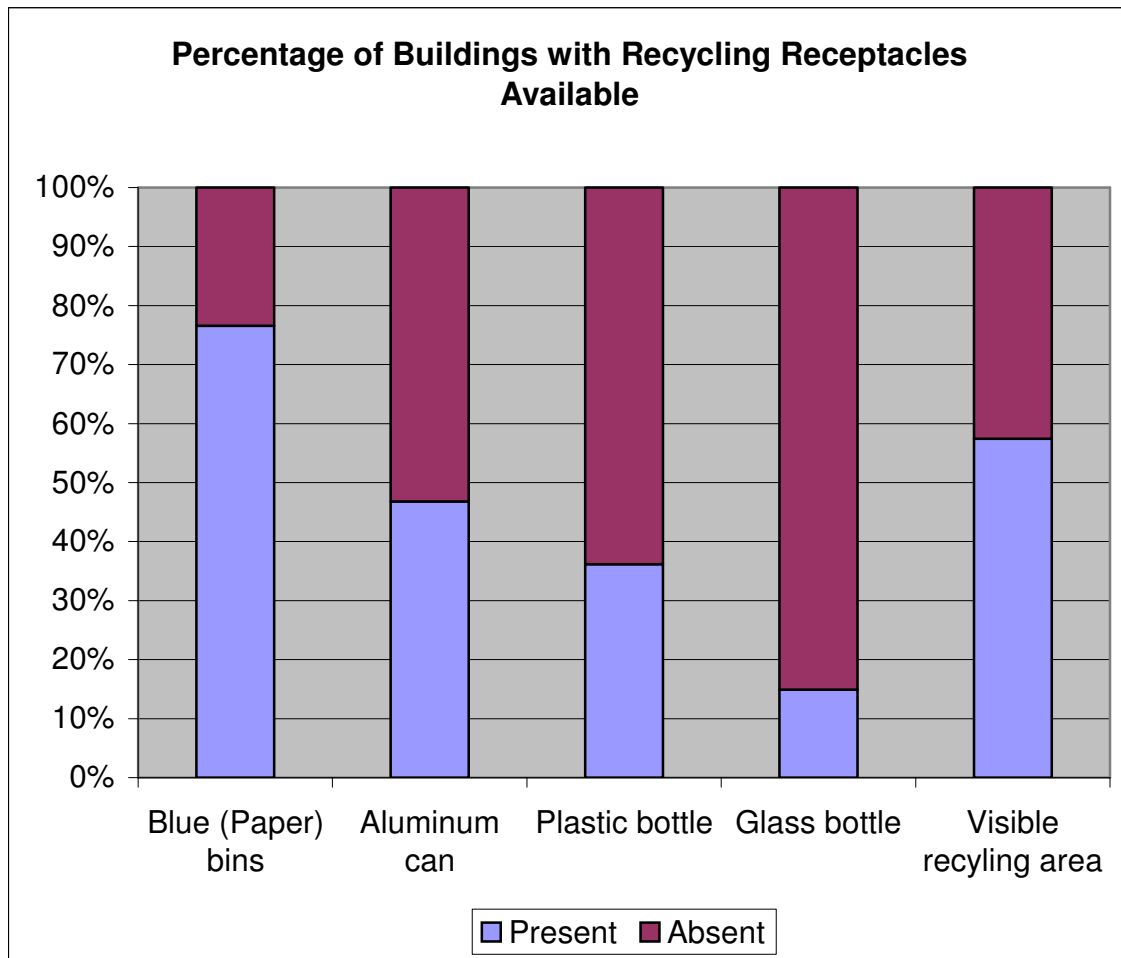
As its first activity, the Committee engaged in campus-wide building surveys to identify the 'state of recycling'; what, where, and how recycling happens; the recycling and waste management infrastructure; and the access of the UD community to recycling opportunities from waste disposal options to venue locations. Volunteers surveyed 59% (47/80) of the buildings on campus, excluding undergraduate dormitories. Many questions could be answered by visual inspections of the buildings, while other questions

were addressed to building managers, department heads and custodial staff (see Appendix I). The Recycling Committee collected the surveys and compiled the data in order to evaluate the state of recycling and make recommendations.

DATA & RESULTS

Below are the results of investigations of the number of buildings with recycling receptacles available in the 47 buildings surveyed.

	<u>Present</u>	<u>Absent</u>
Aluminum can	22	25
Plastic bottle	17	30
Glass bottle	7	40
Blue (Paper) bins	36	11
Visible recycling area	27	20



DISCUSSION:

The results of the survey demonstrate the pressing, immediate need to improve our recycling efforts at UD. The 2007-2008 survey results are extremely similar to those found in the final report of the FSAHC on Recycling dated May 7, 2005. Following the Faculty Senate Report, we hoped to find improvements in UD recycling efforts, specifically, clearer communications about recycling policies, a greater quantity of solid waste being recycled, and the establishment of a comprehensive recycling plan for the University.

Communication with department heads, faculty, students and staff echo the previous findings of the FSAHC on Recycling. The FSAHC stated that stakeholders at the University, students, faculty and staff had expressed interest in taking a more active role in recycling, revealed substantial interest in doing more in recycling and frustration in what was perceived to be ineffective current practices. During our survey, departments, faculty, custodial staff, and students throughout the University appeared unaware of a UD recycling policy and lacked knowledge about which materials were being recycled on campus. There is no policy in place dictating who is responsible for emptying the recycling containers in the buildings surveyed, with the exception of the blue paper bin containers. Overall, frustration with the lack of communication was pervasive throughout the University of Delaware community, specifically about how to get additional blue bins, who was responsible for emptying recycling containers, and the number of blue bins that get contaminated with trash on a routine basis.

Marty Quirk, Assistant Director of Academic Facilities-Custodial Services, reported that two systems are currently in place to recycle white paper and fluorescent bulbs in all campus buildings. Custodial Services is responsible for picking up the paper in the blue recycle bins 3 times per week. Our survey results documented that custodians empty the blue paper bins on an as needed basis rather than adhering to a strict disposal schedule. The current policy requires that the white paper be taken from the blue bins, placed in clear white trash bags, and set out for pick up by the Facilities staff. Notably, the Trabant University Center's Custodial workers were the only staff to report recycling aluminum and plastic bottles. In contrast, surveyors witnessed custodians in other buildings placing the contents of the blue paper containers into trash receptacles. Additionally, contamination of recycling bins with trash was noted by multiple surveyors. Custodians reported to surveyors that often they have to trash the contents of the blue paper bins when these containers become contaminated with garbage. Furthermore, 23% of the buildings surveyed did not have blue bins located on the premises. Overall, there appears to be inconsistent adherence to proper recycling practices. Specific requests which could improve the state of recycling within campus buildings have gone unfulfilled. Individuals who have tried to get blue bins and/or extra recycle containers for buildings on campus have been unsuccessful due to miscommunication between department staff, Custodians, and Facilities. Difficulties with obtaining blue bins were also attributed to the unresponsiveness of the Grounds Departments to requests.

Committee interactions with Facilities have been mixed. Some personnel have responded promptly to emails and telephone calls, which has improved our understanding of the recycling efforts. Other attempts to communicate have been unsuccessful, significantly hindering our progress and leaving questions unanswered. There were

questions that the recycling committee worked hard to answer, but for one reason or another, could not be answered in time for this report (see Appendix II). The fact that many of these questions remain despite concerted efforts is indicative of the lack of a comprehensive University recycling program, communication deficiencies regarding waste management, and to some degree the lack of defined roles and responsibilities regarding recycling.

Our Committee also agrees with the conclusions of the final report of the FSAHC on Recycling on May 7, 2005 that an expansion in recycling would serve to satisfy important stakeholder groups at the University. We learned that there is currently no comprehensive recycling plan, though implementation of one is being evaluated at the upper levels of Facilities Management. However, there appears to be a lack of an interim plan to fill the gap until a decisive plan for recycling is implemented. Furthermore, we agree with prior recommendations that an active and visible campaign to recycle is necessary to provide public relations benefits. The development of the Sustainability Task Force indicates the University's concern with sustainability issues. Now the University needs to lead by example by finding practical solutions to waste management problems, as many of its peers have done. In May of 2005, the FSAHC on Recycling provided evidence proving that there are sufficient benefits from the University in taking a more active role in recycling thereby justifying its associated increased costs.

Ultimately, the lack of structure and implementation associated with UD's current recycling efforts appears to be due to limited financial resources. Purchase of recycling receptacles, employment of facilities staff, and financial costs associated with the removal of certain recycling products by outside companies would require a reliable, renewable funding source. The goal of the GSS Recycling Committee was not to evaluate the financial issues surrounding the state of recycling here at UD but we do recognize, after communications with numerous University personnel, that the lack of a financial plan to support these efforts is a significant consideration to ensuring the success of a comprehensive recycling program. However, our Recycling Committee believes that the class gift of 2007 could be used to mitigate some of the start up costs of such a program.

We unanimously concur that all items presented by the FSAHC in 2005 have not been addressed in the three years since the facts were documented and recommendations were made. The FSAHC summary recommendations from May 7, 2005 are described below:

- A recycling manager be hired to oversee, improve and expand the current recycling program
- Increase recycling to 30 percent of its solid waste stream
- A standing committee on recycling and sustainability be established within the University to implement policy changes and monitor recycling activities in order to foster curricula development in areas related to recycling and sustainability
- The substantial inefficiencies that exist with the blue-bin recycling program due to promotion and communication deficiencies need to be addressed

Based on our survey research, it appears that little progress has been made in three years, therefore our recommendations strongly align with those of the FSAHC. Our Committee recommends creating a strategic plan to implement campus-wide recycling, as there is no comprehensive recycling plan at the UD. Passionate and empowered people are needed to be responsible for the success of the recycling program. We also agree that personnel need to be hired and assigned to oversee, improve and expand the current recycling program. However, we strongly recommend that there be a system established with explicit goals, guidelines, and accountability. There is much work still to be done at University in order to meet the 2005 Faculty Senate recommendations. Problems continue to exist with the current blue paper bin recycling program due to promotion and communication deficiencies (e.g. uncertainties about how to get recycling bins, who is responsible for emptying the bins, and where the materials go once they leave the buildings). Short and Long term goals follow this section to encourage immediate actions to bring about needed changes in the current state of recycling at the UD. This will enhance the immediate state of recycling on campus by increasing the number of blue bins available across campus, reduce problems with contamination, and improve communication within the recycling hierarchy.

IMMEDIATE NEEDS:

- 1) Create a comprehensive strategic plan to implement a comprehensive campus-wide recycling
- 2) Maintain a working collaboration between the GSS and the Sustainability Task Force
 - a) Make recycling a priority on the Sustainability Task Force agenda
 - b) Request that a representative on the Sustainability Task Force act as a liaison between the GSS, the Task Force and key policy makers to answer important questions about recycling
- 3) Increase awareness and recycling education across campus by:
 - a) Establishing a recycling web page on the UD's website with immediately available ways to recycle on campus [e.g. locations of the Delaware Solid Waste Authorities drop off sites on campus, how to recycle the materials (single-stream recycling), and what materials are recycled]
 - b) Encouraging the Reduce, Reuse, Recycle mantra on campus through the UD website, UDaily, UD radio station. Incorporate facts about amount of recycled materials on campus (19% in 2005) and how to recycle materials via single-stream at the DSWA drop off sites on campus with incentives to become an active recycler.
 - c) Placing stickers on trash cans reminding people to recycle
- 4) Charge a Facilities employee to oversee the placement of blue paper bins in every building on campus and hold this person accountable for maintaining the appropriate policies and procedures to ensure that the white paper is being recycled properly
- 5) Create a system of accountability for recycling in each building on campus
- 6) Once it is decided if the University will or will not provide single stream recycling, we need to re-educate the campus community
 - a) Make recycling areas highly visible across campus by adding maps in buildings that identify recycling bin locations and create interactive maps

on UD's website so one can click on a building and get information on the location of bins

- c) Generate a huge marketing roll-out to encourage students, faculty and staff to recycle and create incentives for high compliance dorms/buildings
- d) Establish consistent recycling efforts and policies campus-wide to get the most compliance and a broad reaching effort to let stakeholders, faculty, staff, and students know that UD is committed to recycling and sustainability measures

CONCLUSIONS & RECOMMENDATIONS:

In conclusion, this Committee has found an apparent lack of financial and procedural policies designed to implement a University of Delaware recycling program. The University needs a policy that delineates how the University community can recycle, and specify a hierarchical 'chain of command' for the execution of such a vast program. The University also requires funding for support staff, waste receptacles, and waste removal services. Communication problems noted during this survey process may likely be due to the lack of a coherent and comprehensive recycling plan, as evidenced by the difficulties that our Committee members encountered when trying to get answers to recycling questions.

We highly recommend that qualified people are charged with the success of the recycling program. We advocate that a single-stream recycling program be implemented at the University for many reasons: Delaware Solid Waste Authority has implemented such a program State-wide, therefore the mechanisms to do so are already in place; it significantly reduces both the effort needed to recycle and confusion about what can and cannot be recycled; it requires less space (fewer separate receptacles are needed); it improves aesthetics by reducing clutter due to separate receptacles; contamination problems (as mentioned earlier regarding the blue paper bins) would be avoided; and it is more time-efficient for staff charged with emptying the bins, thus reducing costs to the University.

We also strongly support the establishment of an administrative recycling committee that will continue to work with all University personnel involved in the recycling process, from the Custodial staff to policy makers, to make positive changes in the recycling efforts of the University.

We recognize the financial difficulties of implementing our recommendations. However, we feel the wishes of the classes of 2007 and 2008 could be honored by using a portion of their senior class gifts as seed money to begin the comprehensive program, provided the money be used efficiently and effectively. In addition, we believe the University could justify providing matching funds in support of its move towards enhanced environmental sustainability. The Graduate Student Senate Recycling Committee feels strongly that a robust recycling program at the University of Delaware is honorable, obtainable, and necessary.

Appendix I:

**Graduate Student Senate Recycling Committee - University of Delaware Building
Survey
Fall Semester 2007**

Please fill out the survey to the best of your ability. If anything does not apply, please write N/A.

1. Name of building _____
2. Departments/people housed in building _____
3. Are there any of the following in this building? (Circle all that apply)
Offices lecture halls mid-size classrooms small classrooms computer lab
4. Number of floors (Please include basement if accessible to persons other than maintenance) _____
5. Building manager name, contact info: _____
6. Does this person manage any other buildings? Please list: _____
7. Does the building have any of the following (Mark all that apply and indicate quantity)
Beverage machines _____ snack machines _____ snack bar _____
8. Are there recycling bins near the food areas, if applicable? _____
9. Are there recycling bins for any of the following (Mark all that apply, indicate quantity)
Aluminum cans _____ plastic bottles _____ glass bottles _____
10. Please list where these can be found (where and what floor of the building)
Aluminum cans _____
Plastic bottles _____
Glass bottles _____
11. Does the building have blue bins for recycling paper? _____ If yes, how many? _____
Please indicate where they can be found (comp lab, common area outside teacher offices, dept offices, etc) _____
12. How often do these bins get emptied?
Blue bins _____ beverage container bins _____
13. Where are they emptied to? _____

14. Who picks up the recyclables from campus and where are they taken?

15. Is toner/ink recycled in this building? _____

16. Where are these materials taken? _____

17. How long has this building had recycling receptacles and who initiated this? _____

18. Are recycling facilities in this building hidden from view or difficult to find? Explain

Any additional comments about this building _____

Appendix II: Recycling Questions that have gone unanswered

1. Who is responsible for implementing and overseeing the recycling program?
 - a. What is the hierarchy - each building has autonomy, each general area (group of buildings, etc.), or does one person oversee all of it?
2. How can offices acquire additional blue recycle bins?
3. Can bins be added to buildings? If so, who needs to approve?
4. Where do facilities take the recycling?
5. When do facilities take it?
 - a. Is there a specific pick-up schedule per building? Campus wide? Per Campus section (north, south, etc.)?
6. What currently needs to be separated and recycled?
7. Which compan(y/ies) take(s) the recycling away?
 - a. White paper?
 - b. Cans?
 - c. Glass?
 - d. Plastic Bottles?
 - e. Toner?
 - f. Light bulbs?
8. Can Vita Nova, the restaurant in Trabant, have facilities pick up their recycled materials?
9. When is the University planning on deciding on which way to recycle (multi-stream or co-mingling)?
10. What is the recycling policy on campus?
11. When is a decision to be made as to which recycling program will be implemented on campus?
12. Does the University incur a net budget loss or gain because of recycling policies? Has the University researched ways to make money by selling recyclable products?

Appendix III: Answers received as of March 26th, 2008.

1. Recycling materials are collected and diverted as follows at UD:

- Office paper and cardboard is taken to Confishred, a division of Waste Management, for recycling. UD receives a rebate for those materials.
- Metals go to Newark Recycling; UD takes aluminum cans to this facility and receives a rebate while they pick up other metals (junked equipment, etc) and UD gets a rebate minus their hauling expenses.
- Plastics primarily include bottles collected at residence halls (not academic buildings) is picked up by Allied Waste who takes them to a reprocessing facility. UD does not receive a rebate.
- Newspaper is picked up by a contractor of DSWA for recycling at their Pigeon Point facility. UD does not receive a rebate.
- Glass is picked up by Allied Waste for recycling. UD pays them to take it.

2. Roger Bowman is responsible for UD recycling. Currently, Mr. Bowman's diversion program is working at maximum capacity based on the staffing, equipment, and budget available. He estimates that 20% of UD's waste stream is diverted at an annual *cost* of \$100K. (it is unclear if that is before or after consideration of the diversion savings at ~\$62/ton tipping fee for land filling) Any additional recycling efforts (such as a separate system for individual buildings or Vita Nova) would require consideration of the additional equipment, staffing, and other costs that might result.

3. Facilities is currently considering single stream diversion. If this occurs, a phased changeover may occur in the next 6 months. Even with most materials going into a single collection container, Facilities will likely continue to keep metals (both aluminum and mixed metals) and cardboard separated since their recycling provides not only diversion savings but also results in rebates.

4. It seems as though toner and light bulbs are not collected as part of Mr. Bowman's recycling program. It appears as though toner cartridges are collected and sent for recycling as part of an individual effort. The recycling committee was told on March 26th, 2008, that contacting Occupational Health and Safety may provide answers to questions regarding light bulbs and other materials that the university collects and recycles.

5. Regarding hierarchy of who is in charge of what efforts, someone in the main Facilities office may have these answers. The overall head of the entire facilities organization is Bob Stozek. Mike Loftus is the assistant director of Facilities-Grounds Services, and Roger Bowman is a manager within that department.

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