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Joshua Loseke

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University of South Dakota
Muenster University Center Recycling Program
By Joshua Loseke
Prepared For Dr. Meghann Jarchow

Executive Summary

With the launch of a new degree in sustainability, the University of South Dakota is moving in a new direction with regard to environmental awareness. The creation of this new major reflects the changing social climate which has begun to emphasize green living. Sustainability has emerged and become a central topic of business, public policy, and academia alike. With cooperative action between these three forces, serious action can be taken to correct unsustainable practices that destroy the planet and threaten to permanently alter life as we know it on earth.

Actions must be taken one step at a time in organizations in order to ensure proper analysis has been conducted and adequate controls are in place. Although some may say that the University needs to do more, and do more quickly, the University's new recycling program is an excellent first step towards environmental responsibility. The program will allow USD to adequately judge the impact and evaluate what the next most appropriate action is. With proper planning, the University will come to realize that sustainability is all about integrating environmentally friendly measures into the daily processes which we engage in, without generating an appreciable increase in effort or work, while simultaneously saving money through the consumption of fewer resources.

In this plan I will outline the various options available to the University that I have identified through numerous interviews with faculty and experts close to the area of waste and recycling. These options include various contractors which the University can use to dispose of waste as well as several options for the management of the recycling

bins in the Muenster University Center. It provides a brief explanation of the current situation the University is facing as well as the Missouri Valley Recycling Center's situation.

Background

Beginning in the 1980's, recycling has become a major part of the push toward a more sustainable society (Dandavate, 2013). Recycling in all forms greatly reduces the negative impact humans have on the natural environment in many ways. First, it eliminates the impact on landfills which results in pollution as garbage is carried away by other forces; but it also eliminates the pollution created by toxins leaking out and contaminating soil and groundwater near landfills, which can endanger human populations (Environmental Benefits, 2013). Second, it eliminates the need for new materials to be mined, harvested or produced. This eliminates a significant amount of energy that is required to acquire virgin raw materials. Although recycled materials still need to be cleaned and remanufactured into new products, this requires significantly less inputs than virgin material (Dandavate, 2013). In the case of aluminum there is a 95% energy savings (Facts About, 2013). Third, recycled materials also generate fewer greenhouse gases than the production of virgin materials. Fourth, recycling can also act as a profit center for companies and cities alike (Dandavate, 2013).

There are many different methods of recycling that have been developed in the past few decades. These vary from sorting every item individually to combining all garbage and recyclables together in a one bin system, and everything in between (Wray, 2013). The City of Vermillion utilizes a two-bin system that separates paper and

cardboard materials into one bin, while collecting aluminum and plastic materials in the other. Larger cities such as Sioux Falls have implemented single stream recycling; this is where all recyclables go into the same bin to be separated at the recycling center. Each variation has benefits and drawbacks which need to be considered when selecting an option.

The Current Situation

The University of South Dakota is in the process of expanding the Muenster University Center to accommodate the growing student body on campus. This addition will feature new dining opportunities and it geared towards students who live on campus and are required to purchase a meal plan. Because this demographic is growing and because the new eatery options will increase the amount of waste created on campus, it is important that the University begins a comprehensive recycling program that will divert as much of this waste as possible from the landfill.

Currently, the University does not have a comprehensive recycling program. Some materials are recycled on campus however; special trips are taken by University personnel to the Missouri Valley Recycling Center to drop off other recyclable materials such as books. This type of plan is unnecessarily consuming University time and resources when a simple recycling program would save money by eliminating the need for University employees to make trips to the Recycling Center. These trips not only use up University employee time but also tie up University resources such as vehicles that

are used on these trips. Also, cardboard is given to the Missouri Valley Recycling Center for recycling.

Goals

I have been tasked with providing an analysis of the current recycling situation in the Muenster University Center. Additionally I am to provide a recommendation on how to best implement a recycling program. The goal of the proposed recycling program is to minimize the amount of waste that the University of South Dakota sends to the Vermillion landfill from the Muenster University Center by implementing a recycling program. This will lower the University's overall environmental footprint in addition to lowering the University's facilities costs by reducing the tipping fees associated with sending waste to the landfill. Implementing a recycling program is consistent with the ethical standards to which the University of South Dakota is held.

Description

Universities have always been associated with new, progressive ideas which push to better humanity (Wisconsin Idea, 2013). In today's competitive environment it is more important than ever for Universities to stay up to date on trends and ideas which impact their stakeholders. These stakeholders include students, alumni, parents, donors and philanthropists who are all interested in seeing their money go towards a good and worthy cause. Donors and philanthropists have been found to make financial contributions to liberal arts institutions for socially and environmentally responsible programs (Perry, 2013). For this reason it is important for the continued growth of the University to keep up with socially and environmentally responsible trends. Many people

would find it alarming that the flagship university in the state of South Dakota does not have a recycling program and sends the majority of its waste to the landfill.

The decision to add a Sustainability Major on campus was made in light of the changing social, political and business environment which has characterized the past decade. This demonstrates recognition by the University that the status quo is no longer acceptable and is changing altogether. Many Universities are competing on much more forward thinking ideas such as divestment from fossil fuel investment, renewable energy powered campuses, campus composting programs and more (Fossil Free, 2013; McClure, 2013). Because the University of South Dakota is behind this trend, it could become a problem for the University if they wish to continue to grow beyond a regionally representative University to become represented on a national scale as a progressive liberal arts institution. As the University continues to grow and garner more national attention it will also attract more national scrutiny; failing to compost or power campus through renewable energy are forgivable, however recycling is much more basic. Criticism is inevitable in most cases but by not recycling, the University is leaving themselves vulnerable to it.

Education

The University of South Dakota has a very demographically diverse student body (Moirase, 2012). Many of the students are from farms and small rural towns throughout the upper Midwest, while others are attracted by Division 1 athletics from big cities such as Los Angeles. This presents a unique challenge to the University when educating students on recycling. Because many students come from areas with no recycling and

others come from areas with extensive recycling programs, nothing can be assumed or taken for granted with regards to their knowledge of the subject.

The best approach to this problem is to start from scratch with an education and outreach campaign that will target students, focusing on those who use the MUC most frequently. This means that the campaign will mostly target students who live on campus. Incoming freshman would be given information about recycling upon moving to campus as this is the most efficient means of educating. Providing recycling training to all community advisors (CAs) would also be an effective means of promoting recycling on campus. In addition to this the campaign would also target sophomores as well as older students that still live in the dormitories. By also providing materials when older students move into their rooms the University can efficiently target all of the highest users of the Muenster University Center.

An educational poster campaign would launch in the MUC, this campaign would illustrate what is recyclable in Vermillion and what is not. It would also explain what should be placed into what bin. These posters would be placed above all trash and recycling locations throughout the MUC and would be easy to read and understand. Clear communication about what is recyclable and what is not is paramount to the success of any recycling effort (Cho & Jonick, 2012). Without an understanding what is acceptable recyclable material, it has been found that people are less likely to recycle and that contamination by non-recyclable materials is more common (Cho & Jonick, 2012). This education campaign would be a great opportunity for public relations students to get hands on experience in putting together and managing a campaign.

Student Response

In addition to attending classes and engaging in various college social life behaviors, students are also interested in activism and socially responsible behaviors (Dodson, 2013; Kerk, 2008). This can translate into an upset student body when behavior they deem unethical surfaces. Students are the greatest spokespersons and critics of the University and poor reviews by a University's own student population can damage positive reputations. When students spread negative information about a University there is no amount of public relations work that can change the effects of their reviews (C. Lubbers, personal communication, November 11, 2013). This means that the University needs to be extra careful when dealing with issues that students feel strongly about. If these issues are carelessly dealt with it could quickly ignite a firestorm of criticism.

Competitive Analysis

As with waste collection, there are multiple recycling options available for the University. Unfortunately, because of conflicting information, certain haulers will not offer recycling service to the city. However, the city of Vermillion is in a very unique position with regards to solid waste. The Missouri Valley Recycling Center operates under what is called the Joint Powers Solid Waste Authority, which services Clay County, Yankton County and part of Union County. Other counties outside of these listed are allowed to drop off materials at the Missouri Valley Recycling Center as well, however according to S. Feilmeier (personal communication, October 24, 2013) of Millennium Recycling; no one is legally required to use the recycling facility. This means

that it is possible to take the recyclable materials to other collectors outside of Vermillion and increases the options available to the University of South Dakota.

Option 1: The first option for the University is to take advantage of Vermillion's municipal recycling pickup. This is a cost effective option but does not allow for single stream recycling which would simplify the educational campaign needed on campus, it also does not allow for glass recycling or profitable cardboard recycling. The City of Vermillion picks up business recycling each Monday and charges \$10 per week. According to Bob Iverson, a City of Vermillion employee who runs the landfill and Missouri Valley Recycling Center, businesses currently use Rubbermaid style cans with a hinged top and wheels. These are commonly used in other cities for residential trash and recycling pickup but are only used in Vermillion for trash. These offer both a problem and an opportunity for the Muenster University Center. The problem with them is they are generally less than 100 gallons and therefore would fill up very quickly with empty bottles and cans, the benefit is that they can be easily moved about and tucked away in reasonably small spaces when full and are therefore a flexible option. These could be stored indoors or outdoors depending on the space available. The loading bay offers an excellent area for bin storage that would reduce the custodial work associated with recycling.

Option 2: One possibility is to contract with Independence Waste to collect single stream recycling on campus. Independence Waste already collects the University's garbage and therefore already has a working relationship. When I contacted Independence about this option the salesman I was put in contact with

believed that it was illegal for them to offer recycling services in Vermillion. This is incorrect as my research has showed that no one is required to use the Missouri Valley Recycling Center. Independence Waste, which is located in Elk Point, takes their recyclables to Sioux City and is therefore able to offer single stream recycling, including glass. This would be an excellent option as it offers a wider range of recyclable material on campus and demonstrates a real commitment to recycling. In addition to offering a wider range of material collection this option saves space on the front and back end by eliminating the need for multiple receptacles and dumpsters.

Option 3: Another option is to contract with Independence Waste (or another local hauler) to pick up recyclables and take them to the Missouri Valley Recycling Center. This option would likely be more expensive than Option 1 but allows for the option of greater volume dumpsters. I feel this option is best if the use of multiple small volume bins is unacceptable or becomes a hassle. This option does not allow for the wider range of recyclables described in Option 2 as it eliminates the option of glass. However, the generation of glass waste on campus may be negligible, this depends on how much Aramark generates and how much the new food services will generate.

Option 4: If single stream recycling is desired by the University and Independence Waste will not contract to pick up recycling, it would also be possible to stage a semi-trailer to collect recyclables. This is costly as it consumes resources and space, however it would allow the University to fill up the trailer and only have it removed once full. Millennium Recycling in Sioux Falls

charges \$350 per trailer trip to pick up material. Unfortunately, according to S. Feilmeier (personal communication, October 24, 2013) of Millennium Recycling, this would not be a cost effective option for the University.

Additional Opportunity: The University currently gives its cardboard waste to the Missouri Valley Recycling Center. However, there is no contract or agreement stating that this is required. Raw cardboard is a valuable commodity and could be sold to a hauler or collector to offset the costs of implementing a recycling program on campus. During an interview with J. Jordt (personal communication, September 12, 2013) the issue of selling cardboard was raised, he mentioned the University had considered the purchase of a baler at one point. Crushing and bailing cardboard greatly increases the amount of money it is worth to recycling collectors. I was not able to find out the status of this idea but it should be considered especially if the University has other recognized uses for the machine that would prompt them to consider its purchase. This option should be included regardless of the previous option selected as it makes sense to capitalize on this low hanging fruit.

Design and Development

The following options are available to the University. Each method involves recyclables being collected and picked up in from loading bay of the Muenster University Center. This is where trash is currently collected and stored and presents the best location for recycling as well. In addition to having the back end taken care of the

front end is also important; this is why recycling bins must be distributed throughout the Muenster University Center.

From my past experience at Raven Industries in Sioux Falls, I learned that having an adequate number of appropriately placed recycling bins is imperative to the success of a recycling program. To make recycling as easy and accessible to students every waste receptacle should be paired with an equally sized recycling bin. This means that trash and recycling bins will always be partnered. Therefore when someone goes to throw something away, they do not have to go to any additional effort to recycle. This ensures recycling is easy and accessible to students at all times that they are in the MUC.

Option 1: The first option is to utilize University personnel for the collection of recyclables and the management of waste bins. Although the University facilities department may be under staffed (J. Jordt, personal communication, September 12, 2013), it still makes the most sense to utilize their personnel to manage the recycling program. This is because they are already managing the garbage waste for the Muenster University Center and are therefore the most hands on. They are involved and present on campus throughout the day which allows them to monitor the levels of garbage and recycling bins alike. In the past, students have managed recycling bins in other buildings on campus such as residence halls, this is not a good option for the Muenster University Center as it is a high traffic area where bins can fill up multiple times per day. During my freshman and sophomore years when I spent a significant amount of time in the MUC, the plastic recycling bins, being half the volume of the trash bins would quickly

overflow. Students would resort to stacking bottles outside of the bins or throwing them into other bins such as garbage. Having garbage on the floor is a health concern, an environmental concern, an issue of cleanliness and an issue of image management for the Muenster University Center and the University. As the Muenster University Center is a must see for every college tour I feel it would be potentially detrimental to the University's image to place the management of recycling in the hands of a student organization. The sale of cardboard can be used to offset the additional costs incurred by recycling management.

Option 2: Another option is to place the responsibility of recycling in the hands of a student organization such as the newly founded USD Sustainability Club. This eliminates a cost for the University but raises the possibility of many greater issues. Students in this scenario would bag and pick up the recyclables and dispose of them in the recycling dumpster in the loading bay behind the MUC. Although this eliminates some work for facilities it increases liability for the University as students are handling garbage and using areas reserved for employees of the University yet are unpaid for their work, and their increased risk of contracting an illness. Additionally, student groups have the potential to operate in a cyclical fashion: student arrives at college and starts a group, the group gains a few members and stages a few events for the next two years, during the founders senior year they become too busy and the group members lose interest, the founder then graduates and the group is officially disbanded. In the past, a student group called Recyclemania was in charge of campus recycling, however the group lost interest and is no longer in existence (Kerk,

2008; Dodson, 2013). As it is notoriously difficult to engage students in student organizations on this campus (M. Corio, personal communication, October 29, 2013), I feel it would be counterproductive to put a student group in charge of recycling for this reason: it is likely that the group will lose interest within a few years and the University will be back to square one. Not only is this bad for the environment but it also looks bad for the University as their recycling program is unreliable.

Financial Factors

This program will result in additional costs in some areas as well as savings in other areas, with an opportunity for revenue generation which should be considered low hanging fruit. However, the financial costs of this program should be considered marginal in comparison to the elimination of this potential image liability. As the premier University in the state of South Dakota (SOURCE), it is important to conduct operations in an ethical manner. The possibility for a potentially embarrassing image crisis is something that should be considered and taken seriously by the University. The addition of a recycling program on campus will demonstrate leadership among public institutions throughout the state.

Conclusion

This recycling campaign is important for the University as it represents a first step towards environmental stewardship. Although this program is still in its infancy, the wide range of options available to the University is promising and provides many reasons to recycle. Environmental awareness is advancing at a stunning pace and the University of

South Dakota should strive to keep up with these advancing trends. The recent addition of a sustainability major marks an excellent time to begin moving environmental goals forward and continue to lead by example. The University must gauge the impacts of this recycling program to decide what step is best to undertake next.

The plan which I outlined articulates various options available to the University. These options include various waste haulers as well as options for managing the bins on campus. Another important section to note is the opportunity to sell cardboard to generate revenue instead of simply giving it to the Missouri Valley Recycling Center.

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