Recycling in Off- Grounds Apartments A Global Sustainability Project

Kelsey Kerle-O'Brien Kasey Kuchta Christina Perez

Submitted Thursday, December 9, 2010 TA: James Moore

TABLE OF CONTENTS

ABSTRACT	3
INTRODUCTION	4
APPROACH	5
Budget and Funding	8
Constraints, Barriers and strategies for Overcoming	9
Documentation and Assessment	10
Dissemination and Future Work	10
LESSONS LEARNED	11
CONCLUSION	12
APPENDICES	13
A. Bibliography	13
B. Contact list	14
C. Timeline	15
D. Survey to First Years	18
E. Survey to V Residents	23
F. Off Grounds Cleanup Day	24
G. Presentation to Veliky Rentals, LLC	27

ABSTRACT

Some off grounds apartment rental companies, like Woodard Properties, have fairly strong recycling programs, in which emails are frequently sent out informing residents about recycling and encouraging them to participate and large bins are provided to collect recyclable material. Having witnessed this, we were disappointed to learn that other leasing companies in the 14th Street area, like Wade Apartments and Veliky Rentals, do not have recycling systems in place. Through this project, we hoped to increase awareness of recycling around UVA's campus. We wanted to inform students and other residents in these off-ground apartment complexes of recycling opportunities and what items can be recycled. In addition, we sought to educate the owners and managers of the apartments about the benefits and requirements of starting physical recycling programs. Setbacks such as lack of response and difficulty contacting community members frequently caused us to rethink our strategies.

While working on establishing a recycling program, we noticed that most students and other residents expressed an interest in the project—they *wanted* to see recycling at their apartment complexes—but they would not exert any effort to make this happen. We signed up for a table at a collaborative Sustainability event called America Recycles Day event to spread the importance of recycling and to gather signatures for a petition advocating recycling off grounds. We also hosted an Off Grounds Cleanup Day on Sunday, November 21st, to demonstrate the importance of recycling with visual images of the amount of trash accumulated on a weekend on 14th St.

Using all of the information we collected along the way, we prepared a persuasive report to be presented to various companies, beginning with Veliky Rentals, LLC. The report included a comparison of current trash collection costs with the costs of adding a successful recycling program under Waste Management. We planned to suggest the use of growing support for sustainable actions such as recycling to attract younger, environmentally conscientious students to sign with them. Next semester, if we are successful in implementing a recycling program, we will seek to establish sustainability advocates in each apartment complex to continue and promote the established recycling program.

INTRODUCTION

Once an aluminum can is thrown into a landfill, over 200 years will pass before it fully decomposes. However, when an aluminum can is recycled rather than thrown away, of half a gallon of gasoline is saved. Likewise, over 500 years will be necessary to break down a plastic bottle, and over one million years for a glass bottle¹. Recycling plastic saves twice the energy needed to incinerate it. When a glass bottle is recycled, enough power to light a 100-watt bulb for 4 hours is saved². Instead of filling landfills with materials that will remain for countless generations, we should consider recycling these and other materials so that we can enjoy the environmental benefits. Virginia currently has 15 mega-landfills, each with its share of aluminum, plastics, and glass³.

The University of Virginia itself has a prominent recycling program which diverts a substantial amount of the waste stream. Considering that ³/₄ of UVA students live off grounds, however, the University's program benefits only a minority of students. Some off grounds apartment rental companies, like Woodard Properties, have fairly strong recycling programs, in which emails are frequently sent out informing residents about recycling and encouraging them to participate and large bins are provided to collect recyclable material. Having witnessed this, we were disappointed to learn that other leasing companies in the 14th Street area, like Wade Apartments and Veliky Rentals, do not have recycling systems in place.

While the residents living in these apartment complexes are not powerless to solve the problem, those that do wish to recycle suffer from the inconvenience of having to carry their recyclables far away. Our surveys and interviews have shown that few residents are willing to haul their recycling on grounds or to the McIntire recycling center, so they simply throw everything - Solo cups, beer cans, glass bottles, aluminum, and paper - into the trash stream, adding to the size and lifespan of landfills. Furthermore, this means that all residents, regardless of their opinions on recycling, are faced with unaesthetic, overflowing dumpsters.

After weekend parties, the problem of excessive waste is exacerbated. Even when a recycling program exists, many students are unaware of these opportunities or lack knowledge of what items can be recycled. Through research and problem-solving, we have decided to focus on

¹ Vivan E. Thomson quoted in "Sorting Through Garbage" by Maura Singleton. *University of Virginia Magazine*, Winter 2010. < http://uvamagazine.org/features/article/sorting_through_garbage> (accessed Nov. 30, 2010).

² <u>http://www.recycling-revolution.com/recycling-facts.html</u>

³ Thomson, 2010.

two different target groups to increase off grounds recycling: the student renters and the apartment rental companies. Both groups were the key stakeholders in our project and will face the consequences of our actions, whether they are positive or negative.

Through this project, we also hoped to increase awareness of recycling around UVA's campus. We wanted to inform students and other residents in these off-ground apartment complexes of recycling opportunities and what items can be recycled. In addition, we sought to educate the owners and managers of the apartments about the benefits and requirements of starting physical recycling programs. We hoped that with public education and the implementation of new bins, recycling would increase off grounds.

APPROACH

Originally, we believed that putting bins in place would be a relatively simple process. After learning from Woodard Properties that the installation of their bin was free and that the company only had to pay for one of their two weekly recycling pick-ups, we thought that we would be able to call the city and immediately have a bin delivered. We had high hopes of establishing recycling programs in multiple off grounds apartment complexes by the end of the semester. In reality, the process has been much more complicated.

Although we had planned to work with multiple apartment complexes, we decided to start with a smaller leasing company. This way, we would be able to work through any problems we encountered and perfect our strategy without feeling too overwhelmed or discouraged if the project didn't go as expected. We originally chose the V because we thought it was an independent apartment complex. We later realized that it was connected to a larger leasing company, Veliky Rentals, LLC, and was not as small as we had initially thought. This expanded our project to several of Veliky's properties.

We met with Maureen Sanklemicz who appeared to be the office manager at the V and who was in charge of the trash collection payments and organization. After a brief discussion, she agreed to endorse our actions and to represent the Veliky Rentals property owners for the course of a project. Through her input, we learned Veliky's concerns about installing recycling bins, specifically cost and space requirements. This initial interview revealed that Veliky Rentals would be more reluctant to add recycling bins than we had originally anticipated, and drove us to think creatively about the next steps we would take. First, we knew that we would need to eliminate all of Veliky's concerns about starting a recycling program. We researched current recycling programs and alternatives to physically installing a bin. One idea we had was to establish a joint recycling program with the GrandMarc, a neighboring apartment complex. We intended to propose that the residents of the V take their recycling to the GrandMarc dumpsters and the two leasing companies share the cost. However, we felt that residents would not want to haul recycling a block away and would instead continue throwing the recycling away.

We also discussed the possibility of convincing Veliky to change their trash collection company from Waste Management to a company like van der Linde. Van der Linde collects single-stream trash and recycling, and sorts on location. This potentially could have saved the V space because they would not have needed to separate bins. However, we discarded this idea because we felt that although it would increase recycling, Veliky most likely would have been hesitant to switch trash companies. In addition, we heard concerns from a professor of Environmental Science at the University that van der Linde doesn't actually sort recycling from trash as effectively as they advertise. After these setbacks and some careful planning, we decided that the best approach for us would be to demonstrate the need for recycling to property management companies and find persuasive arguments for establishing a recycling program.

Veliky had asked us to show the economic feasibility of adding recycling. Maureen informed us that they would only take action if installing a recycling program would level no new costs on the company. In order to prove that this was feasible, we began communicating with Waste Management Company. All we wanted was a simple estimate of how much they would charge for recycling and the data on the current costs of Veliky's trash pick-ups. From the beginning, however, we had problems reaching Waste Management. Our phone calls were constantly put on hold, and we were frequently redirected to new personnel. We had to follow up every step of the way with emails, phone calls, and office visits to get the information we needed for our project. This was particularly frustrating because it constantly extended the timeline of our project and made what we had hoped would be a simple task, a very lengthy ordeal.

One other aspect of our project that we considered early on but then lost focus with as we faced other challenges at apartment complexes was to increase recycling at houses and other properties that were not part of an apartment complex. We made fliers about how to get a recycling bin from the city of Charlottesville, but we still needed to check all of the requirements

a property must have in order to receive a bin. For example, there seemed to be some sort of requirement that if the trash is not collected by the city, the residence cannot receive a bin, but we could not find the exact requirements. We decided that once we found this information and edited our flier, we would post these at various locations both on and off grounds in hopes that students will take their own initiative to recycle. To mark the success of this, we planned to have an email address that residents could send a quick email after they had successful received a bin.

Fearing that the bins for the apartment complexes would require an additional cost, we decided to create a contingency plan. Thus, we chose to add surveys to our project. We hoped this would be an easy way to prove that students care about recycling and felt that programs off grounds are desperately needed. We distributed surveys to both the first year students at UVA and to the current residents of the V. However, at this step, we continued to face setbacks and frustration. Hoping to increase response rates, we made the surveys short and concise and posted the first year survey online. Despite this, we did not get as many responses as we hoped. We were dismayed to find that several students claimed that recycling was not important to them. Luckily, these few students proved to be outliers, and we were able to include the results of the surveys in our presentation to Veliky.

Our frustration with this lack of communication and low response rates slowly mounted until we began to worry that we would be unable to reach any of our goals before the end of the semester. Fortunately, in early November we had a breakthrough with Waste Management. Terry, the sales representative we had been working with, informed us that the collection cost for recycling was almost half the cost of trash collection, so with a successful recycling program established, Veliky could feasibly save money. This was a major victory for us, especially after the series of disappointments we had faced, because it gave us a powerful persuasive argument to use. We were convinced that an opportunity to save money would be well received at Veliky.

In order to further demonstrate the demand for recycling among students, we decided to create a petition. We collected over 100 signatures, especially during an event called America Recycles Day. This petition connected our two project audiences – the property owners and the students.

Using all of the information we collected along the way, we prepared a persuasive report to be presented to various companies, beginning with Veliky Rentals, LLC. The report included the comparison of current trash collection costs with the costs of adding a successful recycling program under Waste Management. Also included were the results of the surveys and a mention of the petition. In addition, we planned to suggest the use of growing support for sustainable actions such as recycling to attract younger or environmentally conscientious students to sign with them. This marketing strategy was already being employed by a company called MSC.

While working on establishing a recycling program, we noticed that most students and other residents expressed an interest in the project—they *wanted* to see recycling at their apartment complexes—but they would not exert any effort to make this happen. This seeming indifference was also mirrored in the landlords we had spoken with. They claimed they wanted recycling at their apartments, but it was difficult to get more than a few minutes of their time.

Our difficulties in connecting with students through the surveys inspired us to reach out to them by speaking with them in person. As mentioned earlier, we signed up for a table at a collaborative sustainability event called America Recycles Day to spread the importance of recycling and to gather signatures for our petition. We also hosted our Off Grounds Cleanup Day on Sunday, November 21st, to demonstrate the importance of recycling with visual images of the amount of trash accumulated on a weekend on 14th Street. We used the event to raise awareness about how much littered material was actually recyclable. At the end of the cleanup, we compared the amount of garbage to the amount of recyclable material that we collected; the recyclable material was almost three times more than the garbage!

We found these two events were the best approaches for us to adopt in the short term because they had an immediate impact on students and were also low cost projects that were fairly easy to assemble. Plus, these events gave us some much needed steps of success and concrete markers for our project. At the cleanup day we were also able to gather information about how we could expand our project next semester. We had the participants indicate the apartment complex they were living in or realtor they were renting from and if these company offered recycling. After we have concluded our work with Veliky, we will expand to solve these other indicated weaknesses.

Budget and Funding:

This project was achieved on a relatively small budget of less than \$100.

We spent approximately \$5 to print fliers, paper surveys, and the petition. This took into account the times when we needed to use the library printers for our project. Several group

members had printers of their own, however, so we were able to produce most of our own materials, keeping costs low. All surveys to first years were conducted online and the presentation to Veliky Rentals, LLC was completed through PowerPoint, so there were no associated costs with those components.

Although we do not anticipate further costs to continue our presentations to leasing companies, it is difficult to predict now if we will need to pay out of pocket for any improvements to existing recycling programs next semester. Quite possibly, Student Council's Environmental Sustainability Committee will continue to provide funding for direct improvement projects.

The Off Grounds Cleanup Day cost approximately \$90 overall. Here is the cost breakdown:

- Trash bags and gloves: \$20 (this money will be refunded by Student Council)
- Prizes: \$30 (three \$10 gift cards were purchased to local restaurants. T-shirts and mugs were donated by Student Council, UVA Sustainability, and Outdoors Club)
- Food: \$40 (bagels, coffee and donuts for the morning of the cleanup to reward volunteers)

We view this \$90 as a one-time cost because incentives were necessary to encourage greater participation in the cleanup day, but we do not plan to hold any similar events in the future.

Constraints, barriers and strategies for overcoming:

Through our work, we ascertained that one of the biggest obstacles to off grounds recycling programs was a fear of financial risks. The head of Veliky Rentals, LLC, would only agree to a recycling program as long as it did not create a financial burden on the apartment complex. By researching the costs of trash and recycling pickup, we determined that adding a recycling program would actually decrease costs. Recycling bins would be delivered free of charge to the apartment complex, eliminating any concern about startup fees. Additionally, pickup costs for a ton of recycling were half the cost of trash pickup for the same amount. For example, Waste management charged \$50 per ton of trash picked up, but only \$24 per ton of recycling. Plus, by adding a recycling program, more items would be converted to the recycling stream, therefore decreasing the amount in the more costly trash stream. However, if residents did not recycle and the program was unsuccessful, the apartment company would still be paying

the same amount for the current trash pickup and could end recycling pickup with minimal financial loss.

The second largest constraint was again financial in nature: the lack of available space for an additional dumpster and the sacrifice of a money-producing parking space. Veliky Rentals managers felt they did not own an open plot of land large enough to fit a recycling bin and provide easy access for pickup. Space is especially valuable to property management companies because it can be converted into parking spots, which are worth up to \$100 apiece each month from residents. It would be difficult for any proposed recycling program to compete with such a financial incentive. We were prepared to offer individual solutions about the placement of the bin should the company present this argument.

The last barrier to our project was the dissemination of knowledge about recycling. Students and residents alike were unaware of what could be recycled and where those opportunities were offered. In the future, we hope to address this problem by posting flyers by all recycling bins in an apartment complex. These flyers would provide details of exactly what can and cannot be recycled and would offer pictures and examples of each category to eliminate any confusion. We also hope to eventually place a sustainability representative with each off grounds apartment company to continually update residents about programs and opportunities related to recycling.

Documentation:

We were able to document our project in a number of ways. As stated previously, we created surveys and a petition to demonstrate the importance of recycling to students. For comparison, we plan on completing a second survey of the apartment residents once a bin and our informational signs have been installed to ensure residents are using the recycling program and to determine whether or not they feel more educated about recycling. We also documented our process through photographs and a sign in sheet taken at our cleanup day.

Dissemination and Future Work:

As mentioned above, one of our primary methods to promote our project was the Off Grounds Cleanup Day. We advertised across campus to promote the event and to gain interest in recycling. This focused on the student audience of our project. For the apartment companies, we arranged a meeting with the owners and managers of Veliky Rentals, LLC, to discuss the costs and benefits of starting a recycling program. We hope to continue this into the spring semester as our first presentation with Veliky Rentals went well. We also provided the presented information in packets so that it could be reviewed and discussed after the meeting.

LESSONS LEARNED

First, we learned that busy working adults don't seriously consider proposals made the first time. To gain respect we had to follow up with people by consistently calling and emailing. It was also important to find facts to present. Simple arguments like "many students would like to see recycling" didn't hold up, but survey results and costbenefit analysis did. In addition, when we first started, we were afraid of failure, making us cautious in our approach. Over time, however, we learned that when attempts we made didn't work out, we were able to find new, more successful strategies to implement in the long term. As detailed above, we had to change the direction of our project several times over the course of the semester.

Right before our presentation to Tim Veliky, we discussed the importance of professionalism. In other meetings we had just dropped by the Veliky office in jeans and t-shirts. This time, we dressed in business casual attire and made sure to turn phones to silent. We realized that if we wanted to be viewed as business partners we needed to set ourselves apart from other students. Furthermore, witnessing the difference between Tim Veliky's gratitude for our assistance and Maureen's colder treatment towards us taught us that sometimes it can be useful to attempt to address more than one person in a company. If we do attempt this strategy in the future, however, we will need to be careful because it could be seen as rude to go behind a potential mentor's back.

Finally, Tim Veliky detailed to us a strategy for getting in touch with his contact in the City office. He said, "The more people who call him, the more he'll realize that this is an important matter." Mr. Veliky suggested that we call the City worker and then have someone in the Veliky office call as well. We would have been reluctant early on in the semester to use such a strategy, but now we see that sometimes pressure may be necessary to enact change.

CONCLUSION

A significant measure of success for us would be the implementation of a recycling program in the apartment complexes as a result of our presentation and report. However, we will still find success if the apartment leasing companies consider our proposal by willingly taking time out of their busy schedule to meet with us and listen to our presentation. We realize there are many concerns these companies may have with starting a recycling program, but if they are willing to listen and consider our proposal, one day they may change their minds and start recycling.

In fact, we met with Tim Veliky, one of the owners of Veliky Rentals, on the morning of December 9th, 2010, to give our official presentation. Although he disregarded our proposal for the apartments at 1712 JPA, which was our primary focus this semester, he asked us to work to implement a recycling program at the V. He then provided us with a contact in the City of Charlottesville who could assist us. He further asked for our help adding recycling to a new apartment complex off Brandon Avenue. Our meeting with him gave us a clear focus for how to direct our work in the short term. We hope to have bins installed at the V before the end of the semester at the earliest, or within a few weeks of returning from Christmas break.

If we are successful in implementing a recycling program, we will seek to establish a sustainability advocate in each apartment company to continue and promote the established recycling program and other opportunities on campus. Tim Veliky gave us permission to find a sustainability advocate for the V. Finally, we will work with Student Council, UVA Sustainability and other recycling or sustainability groups on campus to continue this program and make it a focal point in their activities and efforts.

Our long term goals are to approach other leasing companies that do not offer recycling, such as CBS Realtors and Wade Apartments. It is interesting to note that CBS Realtors do not currently have recycling in light of the fact that they are building sustainable LEED apartments and advertising themselves as a "green" company. To continue, we will also look into options to improve existing recycling programs, such as installing more conservation advocates, adding better labeling to bins, advertising on leasing websites for companies with strong recycling programs, and putting up bulletin boards in apartments to inform residents about available recycling.

Appendices

- A. Bibliography
 - a. Keyton, Amy. "Interview with Woodard Properties." E-mail interview. 15 Sept. 2010.
 - b. Lyle, John Tillman. "Chapter 8: Waste as a Resource." *Regenerative Design for Sustainable Development*. New York: John Wiley, 1994. Print.
 - c. *Van Der Linde Container Rentals and Recycling*. Web. 19 Sept. 2010. http://vanderlinderecycling.com/>.
 - d. Vivan E. Thomson quoted in "Sorting Through Garbage" by Maura Singleton. University of Virginia Magazine, Winter 2010.
 http://uvamagazine.org/features/article/sorting_through_garbage (accessed Nov. 30, 2010).
 - e. *Wade Apartments Charlottesville, Virginia*. Web. 19 Sept. 2010. http://www.wade-apts.com/>.
 - f. White, Jackie, and Joseph Cabral. Dare to Recycle. Rep. 2009. Print.

B. Contact list

- a. Mentors:
 - Maureen Sanklemicz Veliky Rentals, LLC— Representative in the leasing office at the V

office@velikyrentals.com

- ii. Haley McGlauflin Recycling Representative for the Grand Marc ham6gq@virginia.edu
- iii. Alice Kister Off grounds Sustainability Rep for Student Council alk9eq@virginia.edu

b. Other contacts:

- i. Amy Woodard Properties Representative Amy@woodardproperties.com
- ii. Rebecca Oppenheim UVA Sustainability rao3j@virginia.edu
- iii. Ella Wong APO Service Fraternity ykw4k@virginia.edu
- iv. Sheffield Hale President's Committee on Sustainability smh2tf@virginia.edu
- v. Halley Epstein Chair of the Environmental Sustainability Committee of Student Council

hwe8b@virginia.edu

- vi. Terry Waste Management Sales Representative 540-607-0779
- vii. McIntire Recycling Center 600 McIntire Road 434-906-0763

C. Timeline

- a. September
 - Mid-September
 - Formed our group and decided on the focus of our project
 - Began brainstorming a list of apartment complexes we wanted to work with the V, Wade were our top choices
 - Emailed Amy Kenton about Woodard's recycling program to use as an example
 - Decided to focus on beginning a recycling program at the V
 - September 27th first attempt to meet with the V to discuss starting a recycling program, but no one was available to speak
- b. October
 - October 4th met with Maureen Sanklemicz at the V to discuss a recycling program
 - Decided to look into establish recycling programs at the V and 1712 JPA
 - Early October
 - Began developing a survey for the residents of the V to determine if there was a need for recycling
 - Began making arrangements to meet with Alice Kister to coordinate with UVA Sustainability
 - Researched other Veliky Rentals, LLC properties to determine how many had recycling
 - Considered distributing flyers to the properties without recycling bins to inform residents of how to obtain a free bin from the city
 - October 11th met with GrandMarc to discuss their recycling program and were told to talk to Haley McGlauflin
 - October 19th met with Haley McGlauflin, the GrandMarc sustainability coordinator, to discuss a joint recycling program with the V
 - October 20th met with Maureen to clarify some details and the possibility of distributing surveys to the residents

- October 24th met with Alice Kister to coordinate with UVA Sustainability and get advice about how to carry out our project
 - Also discussed a cleanup day
- Late October
 - Finalized flyers to distribute but decided to focus our energy at the larger apartment complexes rather than the smaller houses
 - Began discussing the idea of establishing a sustainability coordinator at the V and other apartments to inform residents programs and events and to oversee the recycling program
 - Began discussions of other methods of informing residents of programs and events related to sustainability and particularly recycling, such as bulletin boards, listserves, etc.
 - Finalized the surveys for the residents of the V
- c. November
 - November 1st held a meeting with Alice to further discuss the cleanup day
 - Decided to hold the Off Grounds Cleanup Day on November 21st at 10:30 AM, beginning at Camden Plaza
 - November 4th called Charlottesville recycling and Waste Management to determine requirements and fees for a recycling bin at 1712 JPA
 - November 9th received permission to send out surveys to 1st years through the First Year Dorm Sustainability Advocate Program
 - November 11th finalized requirements and costs for Waste Management Recycling bin
 - Also emailed Haley McGlauflin to confirm details of the GrandMarc recycling program for comparison
 - November 12th emailed Amy with Woodard Properties to confirm details of their recycling program for comparison (she never responded)
 - Mid November
 - Decided to start a petition since survey results were not demonstrating a large enough need to be persuasive

- Chose to organize information into a presentation for the property owners to demonstrate the benefits and needs of initiating a recycling program
- November 15th tabled at America Recycles Day to promote the Off Grounds Cleanup Day and to gather signatures for our petition
- November 21st Off Grounds Cleanup Day
- d. December
 - December 9th Met with Tim Veliky of Veliky Rentals, LLC to present our recycling program proposal and talk with him about other projects

D. Survey to First Years

 a. Copy of Distributed Survey (given to students through Survey Monkey at http://www.surveymonkey.com/s/RH5K627)

	DDE] - Google Chro	me		
www.surveymonkey.	com/s.aspx?PREVIE\	W_MODE=DO_NOT_USE	THIS_LINK_FOR_COLLE	CTION&sm=ekXtDsZuNLK/eCRbU>
First Year Recycl	ling Survey			Exit this survey 📤
		ility class project fo le'd greatly appreci		
Are you planning	g on living off-gro	ounds next year?		
J Yes		U No	JU	nsure
How important is	a recycling prog	gram in your housing	decision?	
🥥 1 (very)	2	J 3	J 4	5 (not at all)
If you discovered decision about li	and the second	ent did not have a re	cycling program, w	ould that change your
J Yes		J No	JU	nsure
In general, how	important is recy	cling to you?		
🥥 1 (very)	2	3 ر	J 4	5 (not at all)
How educated de	o you feel about	recycling?		
🥥 1 (very)	J 2	3 ر	4	5 (not at all)
Is there anything	else you would	like to know about re	ecycling or recyclin	g programs?
	DDE] - Google Chro	me		_ 0 X
www.surveymonkey.	com/s.aspx?PREVIE\	W_MODE=DO_NOT_USE	THIS_LINK_FOR_COLLE	CTION&sm=ekXtDsZuNLK/eCRbU>
Thanks!				Exit this survey 📤
		te to help improve of you about possible o		, please give us your
		Prev Dor	ie)	E
	c	Powered by SurveyN reate your own <u>free online</u>	A set of a set of the	

b. Survey Results

UVa Sites N UofL E	imail 💦 Hotmail	F Facebook	Vahoo Ema	il	» 🛅 Othe	er bookma
	You have a BASIC account				te now	
cycling - First Ye	ar Survey Eat		Design Survey	Collect Responses	Analyze Rei	suits
ïew Summary	Default Report	+ Add Report				
rowse Responses					Total Started Surv	au- 04
ilter Responses	Response Su	immary			Total Completed Surv	
rosstab Responses					Show b	ila Page Only
ownload Responses	PAGE: FIRST YEAR REC	CYCLING SURVEY				
nare neaponaea	1. Are you planning	g on living off-g	rounds next year?		Create Chart	Download
					Response Percent	Response Count
	Yes		-		48.1%	39
	No		-	-	48.1%	39
	Unsure				3.7%	3
					answered question	81
					skipped question.	Ø
	2. How important i	s a recycling p	rogram in your hou:	sing decision?	Create Chart	Download
					Response Percent	Response Count
	1 (very)		1		35.8%	29
	2		-		21.0%	17
	3				19.8%	16
	4		-		16.0%	13
	5 (not at all)		-		7.4%	6
					answered question	81

	w.surveymonkey.com/MySurvey_	Responses.aspx?sm=AvFx	3WDbAxf9ee	=38 53
UVa Sites N UofL	Email 都 Hotmail 🔢 Facebook 🔞	Yahoo Email	» 🗋 Othe	er bookma
	3. If you discovered that an apartment of would that change your decision about		Create Chart	Download
			Response Percent	Response Count
	Yes	-	21.0%	17
	No	The second se	39.5%	32
	Unsure	and the second s	39.5%	32
			answered question	81
			skipped question	0
	4. In general, how important is recyclin	g to you?	Create Chart	Download
			Response Percent	Response Count
	1 (very)	Commission of the local division of the loca	50.6%	41
	2	-	27.2%	22
	3	and the second s	17.3%	14
	4	4	3.7%	3
	5 (not at all)	41	1,2%	1
			answered guestion	81

0 0 1111	.surveymonkey.com/MySurvey_Responses.aspx?sm=Av	Fx3WDbAxf9ee	38 22
UVa Sites N UofL Er	nail 🐉 Hotmail 📑 Facebook 🞯! Yahoo Email	» 🗋 Othe	r bookma
	5. How educated do you feel about recycling?	Create Chart	Download
		Response Percent	Response Count
	1 (very)	33.3%	27
	2	34.6%	28
	3	25.9%	21
	4	6.2%	5
	5 (not at all)	0.0%	0
		annunged quarties	81
		answered question skipped question	0
	6. Is there anything else you would like to know about recycling or recy	skipped question	
	6. Is there anything else you would like to know about recycling or recy Hide Responses	skipped question	0 Download Response
		skipped question	0 Download Response Count 6
	Hide Responses	skipped question	0 Download Response Count 6 Find
	Hide Responses 1. Bigger recycling bins, smaller trash cans :) 2. (just mink that on grounds nousing also needs more recycling bins which include paper, plastic,	skipped question	0 Download Response Count 6 Find
	Hide Responses 1. Bigger recycling bins, smaller trash cans :) 2. I just think that on grounds housing also needs more recycling bins which include paper, plastic, organic trash, and others	skipped question cling programs? Wed, Dec 8, 2010 6:44 PM Wed, Dec 8, 2010 5:51 PM	6 Download Response Count 6 Find. Find.
	Hide Responses 1. Bigger recycling bins, smaller traish cars:) . 2. I just think that on grounds nousing also needs more recycling bins which include paper, plastic, organic trash, and others . 3. Where the recycling ends up and what that company does with recycled material . 4. It would be nice to have a list of what can be recycled and what cant. For instance can egg cartons and paper tower rolls go in the recycling' can lined tuna cans be recycled? Do I really need to take	Wed, Dec 8, 2010 6:44 PM Wed, Dec 8, 2010 6:44 PM Wed, Dec 8, 2010 5:51 PM Wed, Dec 8, 2010 5:47 PM	6 Download Response Count 6 Find Find Find

C Oww	w.surveymonkey.com/MySurvey_Responses.aspx?si	m=AvFx3WDbAxf9ee:	38 23
UVa Sites N UofL	Email 🎝 Hotmail 🛃 Facebook 🞯! Yahoo Email	» 🛅 Other	bookma
	PAGE: THANKS		
	1. Thank you for your time! If you like to help improve off-ground us your email address, and we'll contact you about possible op	is reovering, please give	Download
			Response Count
	Hide Responses		10
	1. arh3mk@virginia.edu	Wed, Dec 8, 2010 7:33 PM	Find
	2. amt9cs@virginia.edu	Wed, Dec 8, 2010 7:26 PM	Find
	3. angulo@virginia.edu	Wed, Dec 8, 2010 6:44 PM	Find
	4. c/2nt@virginia.edu	Wed, Dec 8, 2010 5:52 PM	Find
	5. knc2nx@virginia.edu	Wed, Dec 8, 2010 5:47 PM	Find
	6. ws4qy@virginta.edu	Wed, Dec 8, 2010 5:40 PM	Find
	7. cjp2)/f@virginia.edu	Wed, Dec 8, 2010 5:17 PM	Find
	8. elsóna	Wed, Dec 8, 2010 4:29 PM	Find_
	9. amt5vq@virginia.edu	Thu, Nov 11, 2010 11:17 AM	Find
	10. ekd3u@virginta.edu	Wed, Nov 10, 2010 6:00 PM	Find
		answered question	10
		skipped question	71

E. Survey to V Residents

a. Copy of Distributed Survey



Project Leaders Kelsey Kerle-O'Brien kfk4s@virginia.edu Christina Allgeier Kasey Kuchta

cma8zs@virginia.edu kek5w@virginia.edu

RECYCLING SURVEY FOR V RENTERS

Please complete the survey and return to Maureen in the Leasing Office. This is part of a class project, and we would greatly appreciate your help.

1. Do you currently recycle at your apartment? Why/Why Not? If yes, where do you recycle?

2.	Does it bother you that there is no recycling program	m at the V?	Yes		No
3.	If there was a recycling program at the V, would you	u recycle?	Yes		No
4.	How important is recycling to you?	1 (very) 2	3	4	5 (not at all)
5.	How educated do you feel about recycling?	1 (very) 2	3	4	5 (not at all)

Is there anything else you would like to know about recycling or recycling programs? 6.

Thank you for your cooperation! If you are interested in helping develop a recycling program at the V, please contact any of the Project Leaders listed above.

- b. Survey Results
 - 100% stated they would like to see a recycling program started at the V
 - 100% said that they would definitely use a recycling bin at the V
 - 47% responded that recycling is important in their decision to sign a lease
 - 88% felt that recycling is very important

Some comments the responders made:

"Definitely get one started here!"

"Recycling looks good - The V can use it to promote new residents to come live here!"

"We would love to have one! Our apartment would use it religiously!"

- F. Off Grounds Cleanup Day
 - a. Pictures from the Off Grounds Cleanup Day





b. Email about Off Grounds Cleanup Day

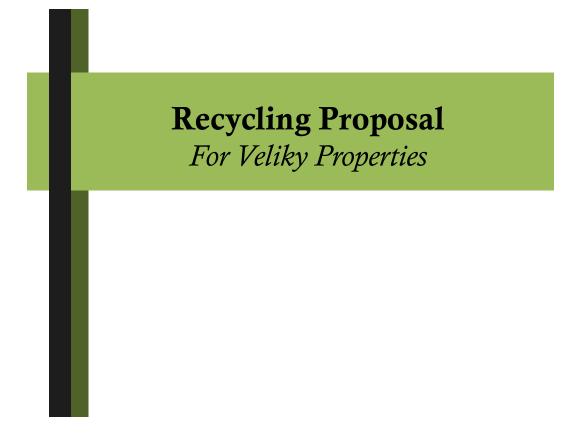
14th Street and Wertland get destroyed every Friday and Saturday night. Let's help make our housing more beautiful! Come out for an Off Grounds Cleanup Day!

When: Sunday, November 21st, 2010 at 10:30 am Where: Meet at the Courtyard of Camden Plaza (224 14th St.) From there, we'll divide into teams to target different areas.

Featuring food from **BODOS** and **DUNKIN' DONUTS**, coffee from **STARBUCKS**, and great prizes like gift cards to **TAKE IT AWAY**, and **WHOLE FOODS**, t-shirts, a re-usable mug and a re-usable water bottle!

All plastics, cans and glass will be recycled.

G. Presentation to Veliky Rentals, LLC



Proposal Statement

Due to popular interest from students, we are working on a project to increase recycling in apartment complexes around UVA. We have done much research on the subject and are hoping that Veliky Rentals will be receptive to our proposal to start more recycling programs at various property locations, specifically The V and 1712 JPA.

We believe that this will be very beneficial to your company in a variety of ways.



Project Leaders	
Kelsey Kerle-O'Brien	NUMBER OF TAXABLE PARTY
Christina Aligeier	conders within a
Kasey Kuchta	· lock flamming in location

Presentation Outline

- Need for Recycling
- Want for Recycling
- Successful Recycling Programs
- Cost and Other Benefits
- Problem Solving
- Best Location for a Recycling Bin
- Labeling Near Bins

Need for More Recycling Programs

• Virginia has 15 mega-landfills

• One recently built facility "could in theory grow to be 500 feet tall (which is the height of the Washington Monument), and could extend across an area equal to a thousand football fields."*

• Time it takes garbage decompose: Aluminum cans = 200+ years Plastic bottles = 500+ years Glass bottles = 1+ million years

* Vivian E. Thomson quoted in "Sorting Through Garbage" by Maura Singleton. University of Virginia Magazine, Winter 2010. <http://uvamagazine.org/features/article/sorting_through_garbage> (accessed Nov. 30, 2010).

The amount of recyclable material that is thrown in the trash stream greatly outweighs the non-recyclable material by about 2/3^{rds}



Want for More Recycling Programs

• Petition

- By surveying first year students, we found:
 - •47% will be looking for off-grounds apartments for the next school year
 - •81% felt recycling is very important
 - •38% would only chose apartments that offered a recycling program
- By surveying residents at the V, we found:
 - 100% stated they would like to see a recycling program started at the V
 - 100% said that if there was a recycling bin at the V, they would definitely use it
 - 47% responded that recycling is important in their decision to sign a lease
 - 88% felt that recycling is very important

Some comments the responders made: "Definitely get one started here!"

"Recycling looks good – The V can use it to promote new residents to come live here!"

"We would love to have one! Our apartment would use it religiously!"



Successful Recycling Programs

This is your competition!

- Grandmarc
- Woodard
- MSC
- Real Properties



Cost Benefits

Information collected from Waste Management:

- Recycling container would be no charge
- Recycling bin would be 8 yards
- Trash bin is 6 yards and can be made larger
- Trash is currently picked up once a week for \$128 a month
- Recycling could be every other week for \$60 a month
- Trash pickup is \$50 a ton while recycling is \$24 a ton

• Cut trash pick-up to every other week with a successful recycling program to save even more

Feel free to contact Waste Management representative, Terry 540-607-0779

Other Benefits

• Good advertisement

• Stand out among other companies as being environmentally conscience

• Reduce unsightly trash overflow



Possible Solutions to Concerns

How to maintain you recycling program:

Many apartment complexes have **sustainability advocates** who are in charge of maintaining recycling programs and encourage renters to have more sustainable habits. Most apartment complexes have a reduced rent as incentives for students to become advocates.

How to maximize capacity of bin:

Cheap and easy to install **can crushers** can be mounted next to the recycling bins so renters can crush their own cans, and eliminate wasted space within the bins.

How to cover any additional costs of recycling programs:

A "**Green Fee**" of \$1-2 dollars could be added to rent starting in the next leasing phase. By explicitly calling this a Green Fee, you are showing that you are a company that cares about the environment. Renters might not mind the extra fee, especially since it is so low, and the fee collected from each renter can actually add up to a significant amount of money

Best Location for a Bin

The bins provided by Waste Management are 8 yards long.

Placement is very important for both ease of accessibility for renters, as well as the recycling trucks.

We have done field research at The V and 1712 JPA, and have determined that there is enough space for a bin at both properties.

Labeling Near Bins

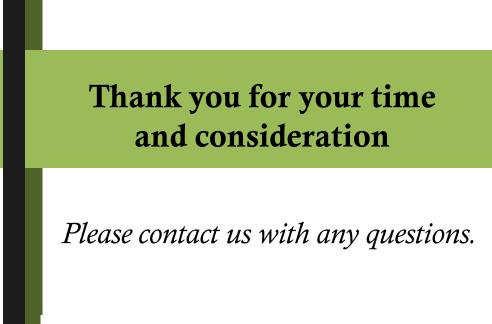
Proper labeling is very important with the new implementation of a recycling program.

We will provide signage near the bins stating recycling pick-up days and what products can and cannot be recycling.

CORDINARS YES 400 Page Trans. Demokratik State	MULTI- FAMILY RECYCLING GUIDELINES					
Page France State State Page Annual State State Page Annual	CATEGORI	68	YES	, ND		
Others and 1 Index for all training formations Index for all training formations Approximate & Type Index provide the training formation Description	Pale Too	20		and Design		
Approximate and Approximate Ap	Same and	4. 服			1	
	-		-	-		
Column Concentration in Subsciences	Depart			S.BORLAND	1.00	

Conclusion

With your cooperation, we hope to increase recycling among UVA students living off-grounds and help make Charlottesville a cleaner, more sustainable place to live.





Off-Grounds Recycling A Global Sustainability Project

Project Leaders

Kelsey Kerle-O'Brien k/k4s@virginia.edu Christina Allgeier cma8mevirginia.edu Kasey Kuchta kekSweivirginia.edu