

Western Michigan University

Eco Mug 2009

Report by:

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Dr Harold Glasser
Spring 2009

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III. Executive Summary

Western Michigan University has a mission statement for sustainability to “advance responsible environmental stewardship” and has made great strides in order to ensure this continues on our campus. The Eco mug project was started with the intent to explore another opportunity Western has to increase sustainability. Groups of past students of Dr. Glasser’s Appropriate Technologies and Sustainability class have come up with a solution to a large waste problem we face on campus, waste from disposable cups. Our group has finished the steps in order to finally implement a reusable mug program to students of our University and made available to all of the WMU students. The use of the Eco mug on campus has the potential to greatly reduce our waste, which would decrease our harmful impact on the environment, and likely save the campus money in the long run. Also, this will serve as a great recruitment and advertising.

The Eco mug group has found that there is an interest and market for the use of reusable mugs on our campus. We have found a double walled, stainless steel, durable, and attractive mug that would be ideal for use on our campus. We hope that all incoming students will receive a free Eco mug in order to launch the program successfully. We hope that this mug will inspire students to make sustainability a part of their daily lives.

Providing incoming students with a free Eco mug would help to create a standard that other students would be inspired to follow. The mugs would be used at the cafés around campus and also at participating locations around Kalamazoo. These mugs are durable and could be used for a lifetime or more instead of using paper, plastic, or Styrofoam cups that will be thrown away and sent to a landfill. The Eco mug program is not only practical in an economic and environmental sense but it also sends a message of sustainability to other students and therefore modeling our sustainability commitment.

In order for this program to continue to be plausible in years to come there may be a need for further financial assistance in the future. By implementing a small surcharge on the use of disposable cups money could be collected to fund the purchase of future Eco mugs.

IV. Introduction

The problem of waste on our campus, and on any campus, is an ongoing battle. Creating a solution to reduce a portion of it was our mission. The specific unsustainable practice that we will be addressing is the use of disposable cups on campus. In our Cafés and Cafeterias we use paper, and Styrofoam cups, with plastic lids to serve beverages. These later get thrown away and accumulate in landfills for years to come. Not only is this practice a hindrance to landfills, and to the environment, but it is very costly to Western Michigan University. We have spent \$32,453.77 (APPENDIX) on these cups and lids last year, and it is a trend that will continue unless action is taken. In addition to the primary spending on these materials Western also spends money to dispose of the 5.339 tons (APPENDIX) of waste once they are done being used. This does not reflect well on our commitment to reduce our impact on the world. The solution our group has been exploring is to reduce this dependence on these products by implementing an Eco mug program. The Eco mug is a double-walled stainless steel mug. The mug has a leak-

proof lid, is highly durable, easy to carry, and stylish. These mugs will not only be used for the duration of time that students are on campus, but hopefully well beyond graduation. The Eco mugs will have the new Western Michigan Sustainability logo on them and will in themselves be a symbol of environmental stewardship. The mugs will be used in substitution of disposable cups and could save the campus and consumers of these products money, and ease the impact on the environment. In addition to being a part of our campuses effort to become better global citizens, a 20% discount from campus cafés on the beverages purchased with a mug will create additional incentive for the Eco mug program.

Prior groups of students have begun the process of creating an Eco mug program for Western Michigan University. We have used this information and continued the efforts to find the ideal mug for our campus. It has proven itself in durability testing, temperature testing, and is visually appealing. If we don't initiate this program on our campus we will be missing a wonderful opportunity to take a significant leap towards sustainability. It is something that our campus can do with a relatively small start up cost. The cost of supplying mugs to incoming Western students is comparable to the amount that we spend on the initial purchase of disposable cups, and would reduce further the amount of money we spend on waste services once the cups have been thrown away. Although there will spending during a difficult economic time the re-usable Eco mug program could be a purchase with great benefits. It is a program that represents low hanging fruit in the idea that it is an action-reaction process. There is no complicated change in the functionality of our campus practices, it is something that will substitute a current practice. The effort is passed onto consumers on our campus, and the effort is minimal. Carrying and using an Eco mug is the change that will take place, and it comes with great incentive to the people who use them. A sense of environmental conservancy will be fostered when people use their Eco mug, and the discount they will receive from using the mug is a tangible benefit.

By attempting to implement the Eco mug program we would be one step closer to meeting the requirements of the Tallories Declaration that Western has already made a commitment to fulfill. The Eco mug program would help Western Michigan University to put into practice two of the objectives of the Declaration. Eco mug practices institutional ecology by promoting conservation, waste reduction and environmentally sound operations. The program would also be a benefit to the entire Kalamazoo area and create awareness in our local community about how to create a sustainable future together.

V. Methodology and Data

The problem our campus is currently faced with is that reusable mugs are not allowed in the dining halls; only disposable cups are used creating 10,678 pounds of waste each year. Dining Services spent \$32,453 this past year on disposable cups for the dining halls (cup data from dining services). Judging by the disposable cups in campus trashes, not all the cups are being recycled like many of them can. As for Styrofoam it can take up to 500 years to break down and in many states not recyclable. A former 410 student researched why Eco mugs are not allowed in the dining halls and found out by talking to the Health Department that it is not a violation, as long as the beverage dispenser nozzles are retrofitted. We are currently working to gather details about retrofitting the nozzles and the benefits of its use vs. spending \$32,453 on disposable cups. By allowing the use of Eco mugs in the dining halls, I believe it will dramatically decrease the amount of disposable cup waste as well as increase awareness of waste and recycling on campus.

As a group we are working with the local community to help reduce their waste from disposable cups by allowing the use of Eco mug in their stores as well as giving a beverage discount to students. By giving students a discounted price on a drink for using their Eco mug, we hope to reduce the waste created by disposable cups as well as increase patronage to participating businesses. We created a pamphlet with information about what the Eco mug is and what positive changes we hope to see happen. Currently, we are working with stores to give discounts to students for using the Eco mug, and should know by the end of the week what stores are willing to participate in the program. We believe that once the Eco mug is allowed in the Dining Halls as well as local businesses around campus, Kalamazoo would see a drastic decrease in the amount of disposable cup waste. We hope that the possibility of discounts from area businesses is the extra incentive some may need to start using the Eco mug, not only in campus dining halls, but at work or even their homes. Once the Eco mug program is in place, we hope to not only increase patronage at participating stores but also create a better sense of environmental commitment throughout the Kalamazoo community.

Description of the scope of your study and your analysis—

Our group hopes that the Eco mug makes its debut in the campus dining halls, extends to area businesses, and beyond Kalamazoo lines. We believe that this program will not only work for WMU but the community as well. We hope that other schools and communities around the country will adopt the Eco mug project to reduce waste and increase awareness of a more sustainable lifestyle.

Our group has spent a great deal of time locating a US made mug. In our attempts to do so we found that US for Eco mugs are hard to come by and have a high price tag that would make it difficult to supply and sell to majority of WMU campus. We found several sources that make the mugs outside the US however distribute them in from states like Michigan. We received samples of different mugs from several companies and tested them for durability, temperature retention, appearance, as well as cost. Our group had found a few that met the standards that we are looking for: durable, leak proof, keeps drinks hot/cold and a spill proof lid. We found that these mugs vary in cost and that

others may be willing to work with us more than others. We have narrowed down our choices but have not made a final decision due to cost and the decision of WMU. If the school is willing to purchase these mugs, we have talked about starting with 5,000-6,000 mugs for incoming students. After seeing how things go with our Eco mugs on campus, there may be a more substantial purchase to come as well. We hope to not only distribute the mugs to incoming students but to sell them in Campus bookstores and at possible participating local stores.

As a group we tested the mugs for heat and cold retention. For heat retention, we brewed hot water in a coffee maker at 176.6 degrees/F. Exactly a 1 hour and 30 min. later we checked the temperature in the mugs. The mugs we narrowed down to be our favorites, had the hottest temperature ratings overall. For cold retention we used a half cup of room temperature water, 74.3 degrees/F. We added 1 cup of ice to the water then tested the mugs exactly 1 hour and 30 min. later. The temperatures did not vary as much as they did in the heat trial. Durability is also a major concern for the Eco mug we select. As an avid coffee drinker, I have dropped my mug several times; many of them have been downstairs. For the durability test, we placed each mug at the top of the stairs and gently pushed each over to fall downstairs. Some of the results were expected; a plastic top to one of the drinks broke, and too many there were minor scratches. A surprising incident was the bottom fell off one of our favorite mugs. We rated the mugs durability on a scale from 1-5, 1 being the best and 5 being the worst. This scale was also used for rating the overall appearance of the mugs. Temperature, durability, and appearance were all research done for the Eco mug. The pamphlet was created to educate and distribute to possible participating stores. Information about the current disposable cup data was sent to us by dining services, and is used in our presentation to show their price, \$32,453 vs. our Eco mug price for all incoming students (working on price).

The questions we asked students were:

- If you received a free Eco mug, that was leak-proof, would you be likely to carry it around with you on campus if you received a discount at campus cafes?
(yes/no/maybe)
- Would you be likely to keep your Eco mug with you at all times if participating stores around Kalamazoo provided a discount?(yes/no/maybe)
- If you received a free Eco mug, would you approve of a surcharge on a disposable cup on campus in the event you forgot to bring your Eco mug? (yes/no/maybe)
- To discourage the use of disposable cups what surcharge would you recommend?
A. 0 cents B. 5 cents C. 10 cents D. 15 cents E. 20 cents F. 25 cents +
- What local stores would need to participate with a discount to motivate you to use your Eco Mug? _____

We will randomly select 40 students around campus and tallied our results. We hope to have the information later this week, and have it updated in our proposal. Information can be viewed in appendix iii.

VI. Best Practices on Campus

History of the Eco Mug Project

In 2001, a group of students in the Environmental Studies 410 class began an Eco Mug project. Their goal was to cut back the use of polystyrene (Styrofoam) cups on and around campus. The report contains information on the harmful effects and economic costs of Styrofoam, data on disposable cup waste on campus, and research from reusable mug programs across the country. The group began the process of educating and promoting the idea of an Eco Mug, and made decisions on the mug and distributor.

In 2002, 400 blue 22oz Eco Mugs were purchased from Weisenbach Specialty Printing. The mugs shell was made of 100% post consumer recycled plastic. The mugs began to sell almost immediately after they arrived. As a benefit, a free organic apple juice was included with a mug purchase.

The Eco Mug project received a lot of feedback, the idea was great but the mugs were a problem. The mugs leaked, punctured easily, the imprints scratched and smeared, and many owners complained that it was too “bulky.” By 2003, another project was started to research alternative mug options. The project compiled criteria for an “Ideal Eco Mug” and tested many mugs. Through the testing and research a new mug was introduced and implemented.

The 15oz stainless steel mug was funded by the WSA in 2005. Unfortunately, in 2007 the WSA could no longer fund the mugs. The funding was picked up by a research grant for the last semester of the school year. Due to the lack of support and knowledge of the Eco Mugs the program began to suffer. The price of the Eco Mugs were raised from \$5 to \$7 in an attempt to make them self sustainable. Due to the price jump, people were no longer willing to buy the mugs.

Dining Services

In 2008, the WMU Dining Services Café GoCup was introduced to help reduce unnecessary landfill waste generated by Styrofoam and paper cups. These cups can be used in six on-campus cafes but they can not be used in the dining halls. The 16oz Café GoCup can be purchased for \$3.25 which includes a free beverage. WMU campus cafés give a 20% discount on refills. The cup is not desirable because it is made from plastic, which is not durable, and because of the limited places that accept the cup.

V. Best Practices on other Campuses

University of Vermont

In 1989, students at the University of Vermont started a reusable mug project and named the program “CUPPS,” which stands for “Can not use Paper, Plastic, or Styrofoam. Customers who use reusable mugs pay \$1.09 for any size refill on campus. In addition, their mug provider Sodexo donates \$0.15 to the National Fish and Wildlife Foundation for every Sodexo eco-mug purchased. Later, the “Spot a Mug” program was started and supported by the University Dining Services and UVM Environmental Council. This program rewards individuals for using their mugs through free refill coupons.

University of Connecticut

At the University of Connecticut, Eco Husky Mugs are sold at \$4.95 each and provide a \$0.30 discount every time it is used. Every year, Eco Husky volunteers work at an informational table to share facts regarding the mugs and its role in reducing waste. In 2006, Avery Point became their first branch campus to distribute the mugs.

Oregon State

Oregon States SSI (Student Sustainable Initiatives) teamed up with the ASOSU Environmental Affairs Task Force to design and purchase stainless steel coffee mugs called Reuse-a-Cups. The mugs became available for sale in fall 2007.

University of Colorado Boulder

In 1986, University of Colorado Boulder began the CUPPS program. In 2005, the name was changed to the Eco Mug and the design of the mug was changed. Each incoming freshman is given an Eco Mug.

Yale

Yale University is considering giving all students on the meal plan stainless steel mugs, which has been approved by the Yale Office of Sustainability. Their plan is to reduce paper cup waste and reduce the costs Yale University Dining Services spends on this waste.

VIII. Discussion

The results from our Eco mug project have demonstrated how difficult it is to find the “perfect” Eco mug. Our ideal mug would have been American made, double walled stainless steel, durable, leak proof, less than \$10 and around 16 oz. We spent a great deal of time looking for at least an American made, stainless steel mug; unfortunately most are made with plastic or if they are made with stainless steel it’s very expensive. Quickly we focused on finding a mug that fit all the descriptions besides being American made. We wanted to find a mug that would last a lifetime and be the mug no one wanted to lose. We had to sacrifice buying American made because it was out of our price range, but still wanted to go with a distributor from Michigan or the US. Working conditions in the plant which the mugs are made is very important to us as well. We have been working with the distributors to find this information but have so far been unsuccessful in collecting the information.

After our research and testing of the mugs was completed, we narrowed the mugs down to our top 3 mugs. These mugs are the Bullet Line, Silver with pop top, and the Green mug. Our 410 class enjoyed the look of these 3 mugs the most, and said they would use them if we purchased them as an Eco mug. The Bullet Line held the heat the longest, was one of the most durable, and had one of the highest ratings for appearance. One of the unique options of the Bullet Line is the top once twisted off, becomes a cup for use with the beverage. As unique as this may be, we came to the realization that not all students would use this method and just drinking from the mug was not as easy as one with a sip top lid. Our 2nd runner up was the Green mug with a sleek, shiny-green design and overall easy to use mug. The temperature testing proved the mug to be in last place

for holding heat. As for durability, the bottom disc fell off the mug, and needed to be re-glued. You could still hold liquids in the mug but stability without the bottom disc was an issue. The #1 mug was the Silver with pop top lid. It is a simple sleek, silver design and the lid was the easiest to use, and one of the best for being leak proof. For heat retention it was in 2nd place, which is of great value for coffee and tea drinkers. The quote that we have received for the price of the Eco mug, including the color logo, would be \$5.99 per mug. We feel this mug fits the description of our criteria and is within a reasonable price range for such a product.

Now that we have found our potential Eco mug, we need to focus on getting the mugs approved for use in the dining halls so that students will be allowed to have the option to not use disposable cups like Styrofoam that is harmful to the environment. Once we have the approval of dining services to allow retrofitting of the nozzles, Eco mugs will finally be allowed in the Dining halls. The next step is to have the Eco mug in the hands of all incoming students free of charge. Our group would like to educate the students by having a booth set up in the dorms or at possibly bronco bash this fall. Once students have the mug and are educated about the benefits of the Eco mug vs. using a disposable mug, we will become one step closer to becoming a more sustainable campus.

IX. Limitations of Analysis

In our efforts to eliminate the use of Styrofoam on campus there have been some minor problems that set us back from letting our work progress accordingly. Our first and most important problem was finding a distributor that was located in the United States that had a mug that suitable for our needs. This made it more difficult to get started on the project because we had no mug to show, and were unable to do our preliminary tests on the mugs. There were some technological problems in reading the data that had been sent to us via e-mail containing past Eco mug reports. We had to wait to hear back from Judy Gipper from Dining Services so we could acquire a disk that had information in an uncorrupted format. We also received information about Western's annual disposable cup purchases that was difficult for our group to interpret. There has also been difficulty in getting the Head of Dining Services to possibly let students use the new mug in the dining areas on campus, mostly because we are finding it hard to get information on retrofitting the nozzles so they could make use of the mug. Other extensions for the project were hard to perfect including the pamphlet that we would give to participating businesses, and a survey that would be approved by Doctor Glasser for distribution. We would have liked to talk to more businesses about certain discounts that could potentially be offered by bringing in the mugs. We hope that after the mugs get into the hands of incoming students local eateries will support the eco-mug project and give a discount, but for now top priority is getting the mugs approved by President Dunn and within the next semester have them ready to be distributed.

Future Work

We were not able achieve all of our goals in the semester long project but there are things that will have to be done after this semester is over for future eco-muggers. One of the main areas that will have to be worked in is cooperation from businesses that

would like to participate in offering a discount when the eco-mug is used. Although discounts still exist from other Eco mugs at businesses including; Coffee Works, The Bagel Beanery and Fourth Coast, there is still many other businesses that should be included in the project. It is of great interest to whichever group picks up on our work to get local business to either give a discount or offer more of discount. More future work could be done at bronco bash and other WMU functions with the new and improved mugs. For future work, is important to contact school organizations like CAB and WSA to get help in distributing the mugs on campus during events, which will lead to a broader knowledge of the benefits of the eco-mug. Ultimately, future work should include the complete eradication of Styrofoam cups. Our hope for other classes is to make it so the university only purchases or enforces mugs on campus and eliminate the use of Styrofoam.

Detailed plan for running the project:

- Set up account to support funding of the Eco mug
- Money for charging a small fee for disposable cup use could go towards this account
- With financial support, sell mugs at the bookstore.
- Give stores who participate the opportunity to sell the mugs in their store
- Begin advertising the mugs with posters and signs around campus.
- Once Eco mugs are allowed in Dining Halls and are sold in the bookstore, do a sculpture of disposable cups to draw attention to the Eco mug program
- Give students the opportunity to be in charge and run program to keep it running smoothly. It would help gain experience for students studying ENVS.
- Keep in contact with participating stores.
- After the Eco mug's 1st successful year, compare the disposable cup use of the previous year, to the current year to show progress of the Eco mug reducing disposable cup waste.
- Frequently advertise with posters and create an Eco Mug day where if students are caught using their Eco mug they are entered into a drawing to win a prize, or a small prize is given to each student that has an Eco mug.
- Contact distributor to make sure mug is available periodically

Timeline for future projects

- Ordering mugs for the distributor may take several weeks.
- Find out what businesses are signing or what discount they will offer by periodically checking each fall for current discounts on Eco mug.
- Follow up with distributor to check availability of mugs each semester.
- Contact campus officials for funding and distribution of Eco mugs.

X. Conclusion

The Eco mug project is a big step in the “greening” of our campus; most importantly the eventual elimination of Styrofoam will lead to a healthier and cleaner environment. Over the years there have been past projects that have been successful, but our project has potential to change the way that students consume beverages and reduce waste on campus for good. Although there are some discounts that exist on and off campus we hope that more will be offered in the future as an extension of the Eco mug project. Besides preserving our environment, there will be a decrease in spending in the future without the purchase of Styrofoam cups and lids. Some things that can be done in the near future are:

- Hand out mugs at WMU functions to students
- Find more stores that want to participate in the eco-mug project or increase discount.
- Encourage eco-mug users to bring their mug with them on and off campus.

With the eco-mug entering our campus in full force next semester we hope that we can serve our goals with some long-term effects that will hopefully stay on campus forever, such activities can include:

- Eliminate the use of Styrofoam completely on campus
- Let dining halls use the eco-mug for carryout (including retrofit)
- Continue purchasing eco-mugs to eliminate the need for Styrofoam.

Our University is among many others that have eco-friendly practices. Our efforts to make a change on campus will hopefully resonate ways that should be practiced for years to come. Through this project we hope to increase awareness of environmental sustainability, create an environmental culture on campus, and educate others on leading environmentally friendly lives.

Appendix A

Group Contact List

Thomas Doherty

1-313-330-8088

Thomas.c.doherty@wmich.edu

Kaitlin McKinnon

1-248-877-2904

Kaitlin.j.mckinnon@wmich.edu

Lacey Higgins

silverkittie67@hotmail.com

Madeline Brown

Mjbrown1016@gmail.com

1-517-414-5855

Appendix B

1. **Lisa Angelilli**

Earth to Earth

Website: <http://www.freshhotshirts.com/>

Phone: (248) 335-7015

Fax: (248) 335-7638

E-mail: art@freshhotshirts.com

2. **Roger Baldwin**

Holden Custom Products

Website: www.holdenbrand.com

Phone: 1-877-707-9612

E-mail: Roger@holdenbrand.com

3. Michele Fisher

Promotional Impact ĩ Green Giftz

Website: www.greengiftz.com

Cell: 616-308-0231

Fax: 616.735.1000 - 616.735.4111

E-mail: michele@greengiftz.com

Address: 648 Monroe NW Ste 218 Grand Rapids MI 49503

Appendix C

Good afternoon Harold, I do have a sample that I believe will meet your requirements. However as far as the process to Manufacture these our compliance people have requested that you submit in writing the specifics you would like to receive from us on the process. (the details) Understand that our overseas operation is proprietary. Thanks for your assistance in this matter. I do not want to proceed forward if we cannot properly meet all your criteria. Roger Baldwin/Holden Custom Products
1-877-707-9612

Dear Roger,

Here are our criteria:

1. Double-walled insulated stainless steel
2. 16 oz
3. Leakproof lid
4. Highly durable
5. Handle is optional (if handle closed, preferably with carabiner)
6. Easy to carry and transport
7. Stylish—especially for students; something that they will want to carry around and keep with them over time as a symbol of their sustainability commitment and as a symbol of our university's commitment to sustainability.
7. Any available information on life-cycle production data & factory practices (was the steel used in manufacturing the mugs recycled, for instance; work conditions; ISO 9000 & 14000 certification of factory, etc.)

The students were also interested in testing your: Bullet Bottle CPCGC-SM-6711

Is this double-walled stainless?

Thanks for your assistance,

Harold

Good afternoon Harold, thanks
for your detailed criteria.
The Bullet Bottle is a
double walled stainless steel
and 16.9 oz.
and a Leak proof locking cap.
I would be happy to have a sample
sent out to you.
What color would you like?
-Blue/ Green/Red?
Would you like to see the
leather carrier also?

Very little information if any on Mfg.
process would be available on this item.
Roger Baldwin Holden Custom Products
1-877-707-9612

Here's Bullet mug pricing:

****This is a Quote from Holden Custom Products****

****QUOTE For the sample Bullet Vacuum Bottle****

(see below pricing based on sample sent-attached
price DOES NOT INCLUDE Leather Carrier)

Color: Stainless Steel

Cap: Leak Proof Locking

Bottle: Double wall stainless steel
(all re-cycled/per factory)

Size: 16.9 oz.

Imprint size: 2-1/2" wide x 6" high
Max. imprint area

Art: 2 -color imprint (from WMU)

Art File: EPS Vector (is best)
(a jpg/pdf can cause delays)

Job: Completed overseas (see turntimes)

Pre-Production sample: Yes 1

Turntimes: 8-15 days after original art approved
for Pre-Production sample

30-31 days Production

30-35 days Ocean & Customs

(overall 11-12 1/2weeks to
arrive one location WMU)

Below pricing reflects this turntime to complete job

5,000 units = \$ 4.44ea

6,000 units = \$ 4.19ea

all quantities add \$36.00 per color set up
(2-colors \$72.00 total)
Plus fob Miami, Fl. shpg. from Miami/to WMU
For an August 10 delivery. An order would
need to be placed around April 27th.

If you would like a quote for this item
with faster turntimes taking from our
warehouse inventory I can provide this.
(same item)

Price is much higher.

Thanks for the opportunity and let me
know how I can be of further assistance.
Roger Baldwin/Holden Custom Products
1-877-707-9612
cell 214-642-7787

Harold Glasser wrote:

Dear Lisa and Peter,

As I discussed with Peter this afternoon, I am the chair of WMU President John Dunn's Universitywide Sustainability Committee. I also teach a class: Ecological Design: The Campus as a Living, Learning Laboratory. A few years ago students in this class created an Ecomug Project to reduce the use of styrofoam on campus and in Kalamazoo. The students collaborated with local coffee shops and restaurants to reduce drink charges when people brought in their Ecomug (a stainless, double-wall vacuum mug that they sold and was also sold in the participating cafes).

President Dunn is interested in expanding the project to purchase 5,000-6,000 stainless mugs for all incoming WMU students as well as to sell several hundred to people in the campus community, etc. My current students are researching potential mug distributors and testing mugs. Their idea is to identify a mug that people would want to keep with them, fall in love with, and want to pass on to their kids. They are very interested in finding a sustainable manufacturer/distributor and they would be thrilled if we could identify a Michigan (regional) manufacturer to work with. We would be glad work with/assist you in exploring this, if the idea is of interest.

Please send to my WMU ENVS address below two samples of all of the mugs listed below, if possible for them to test. If you have any other suggestions for mugs that fill our description above, please send them too.

- BOTTLE—MUG—M17

- TRAVEL—MUG—M14
- TRAVEL—MUG—M12
- TRAVEL—MUG—M5
- CSM10
- TN78
- SM—55

We look forward to working with you.

All the best,
Harold

Dear Harold,

How exciting to see how small the world is, and how things seem to always come full circle. I worked with Mary Francis Fenton in 1988. We spent lots of time talking about her book and her worms. I actually was working with her on a thesis she was writing on an artist, Melvina Hoffman, who worked under Rodin, and I translated all of their correspondences from French into English... What a cool project. I will locate these mugs and get some samples ordered for you. The latest and greatest trend in travel mugs is Recycled plastic mugs. I will send a few of those as well. Do you have a logo in mind? I would be happy to design a logo for this project free of charge. I would be honored! After all I received my graphic design degree from WMU! If you would like to give me some guidelines for the project and any wording & logos that you already have, I can mock up some ideas and e-mail them to you for inspiration!

I will be in touch soon.

Sincerely,
Lisa Angelilli

From: Harold Glasser <harold.glasser@wmich.edu>
Date: February 12, 2009 1:01:01 PM GMT-05:00
To: art@freshhotshirts.com
Subject: Re: WMU Ecomug Project

Dear Lisa,

Wonderful to hear from you. The serendipity gods and goddesses must be with with us.

We look forward to receiving and testing the samples. Do you have any ideas about the possibility about finding a domestic producer of stainless double-walled mugs? High quality and durability are key criteria for us!

Thanks for your very kind offer about design/logo support—we will likely need help with figuring out what's going to be on the cups themselves and how everything is to be creatively organized on the mugs. Right now the President's Universitywide Sustainability Committee (which I chair) is working with the WMU Design Center to

develop a Sustainability Logo for the university. Their due date is the end of March. To get a bit of a better idea about what we are up to, please check out the WMU sustainability website:

<http://www.wmich.edu/sustainability/>

We are excited about the opportunity to work with you and look forward to continuing the conversation (I'm especially interested to learn more about your work with Mary Francis Fenton—let me know if you and Peter are ever in the area, we'd love to have you over).

Cheers,
Harold

Hello Dr.Glasser,

Attached is a breakdown of the disposable cup usage for our Campus Cafes and Dining Service areas. This includes the Dart Styrofoam cups and lids, Solo Coca-Cola paper cups and lids and the Solo Starbucks cups and lids along with the LBJ cup sleeves. In order to get a complete years worth of data, I used our 07/08 usage with our 08/09 costs.

As we're in the final planning stages for Orientation, we would appreciate any information that you have concerning the Ecomug so that we can share it with the Orientation leaders and add it to our marketing materials for the upcoming school year.

Let me know if you need any additional information.

Thank you,
Paul

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Mr. Glasser,

I am a student that is in the Sustainable Solutions Consulting class at the University of Colorado. My team is in charge of working on the best way to set up students to use reusable mugs. I was hoping that you could perhaps tell me a little bit about Western Michigan's plan for this behavior. Such as, what

kid of mug? What incentives will you provide to make students do this? Will students be given the mug for free? Answers to these and anything else you view as useful would be very helpful towards my team and ultimately to the University of Colorado. Also, of course if you have any questions about our plans for reusable mugs, don't hesitate to ask.

Thank you,

Danny San Filippo

Dear Daniel,

My students are currently finishing their project. When it is completed they can pass on their results. Please share your work when it's available too.

Thanks,

Dr. Glasser

Travel Mugs Tested	Ending Temperature (Hot)	Ending Temperature (Cold)
<i>1 Hour and 30 Minute Duration</i>	<i>Starting Temperature (176.6 Degree/F)</i>	<i>Starting Temperature(74.3 Degree/F) + ice</i>
#79167- Green Mug	123.6'	34.6'
Bullet Line	154.4'	33.4'
#79461 - Silver w/ Pop Top	130.2'	33.7'
Silver no logo	126.6'	33.3'
Tweedle	124.4'	33.8'
Blue Bio	123.9'	33.6'

Appendix Di

Travel Mugs	Durability (rated 1-5/best -worst)	Appearance	Size	Overall Cost
ASI #42424 (holden 3/30)- Blue w/ lid	5 - Plastic Top Broke Off and Busted	4		
bullet line-(holden 3/30)	1 - Dent On Side	1		
Go Green/biodegradable Red	(Did Not Test....Tested Blue)	3		
Biodegradable Blue	3 - Crack on Side	3		
#78165- Orange push top	1- No Change	2		
# 77865- Orange w/ Handle	3.5 - Top Popped Off	3		
#79167- Green	4 - Bottom Broke Off, Top Popped Off	1		
#77388- Mocha Silver	2 - Scatched	3		
#79461- Silver w/ pop Top Lid	*****	1		
Tweddle-Silver w/ Black Grip in Middle	*****	1.5		
1501-18SL- Silver w/ Black Top (no logo)	*****	2		

Appendix Dii

