

**SUBSTANTIAL SUSTAINABILITY PROJECTS**  
**“The Green Initiative”**

*Designed Especially*  
*for*

**BALL STATE UNIVERSITY**  
**MUNCIE IN**



**PREPARED BY**  
**PROJECT MANAGEMENT LEADERS**

**FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS IN**  
**ISOM 300 -- PROJECT MANAGEMENT**  
**FALL 2011**

**PRESENTED TO**  
**S. M. SMITH, PH.D., PMP**

## SUBSTANTIAL SUSTAINABILITY PROJECTS

### EXECUTIVE SUMMARY

During the fall 2011 semester, Ball State University (BSU) undergraduate students enrolled in ISOM 300 – Project Management implemented extensive experiential projects to improve the Student Involvement category grade on The College Sustainability Report Card located at [www.greenreportcard.org](http://www.greenreportcard.org). BSU has earned a C+ on the report and a C in the Student Involvement category.

Sixty-five (63) students divided into 14 teams executed immersive learning projects that focused on increasing awareness about campus environmental issues, improving the campus landscape, intensifying recycling efforts, and providing information about saving energy. A few of the significant accomplishments were:

- raising funds that purchased 40 energy saving light bulbs
- recycling discarded computer paper into usable note pads
- conducting student surveys
- promotion of reusable water bottles
- property renovations
- planting trees
- building a flowerbed
- a cookbook that contained ecologically friendly recipes and recycling tips
- an elementary school presentation to spread awareness about the green movement
- ride your bike day
- soccer and basketball sustainability awareness events
- trash generation awareness games
- free installation of 131 Vectren Corporation's water saving showerheads in Anthony Hall

The student team projects are indicative of real and meaningful strides toward making Ball State University an environmentally friendly campus. In addition to the applied activity, each team submitted a detailed project portfolio that documented their project.

The final collective effort to raise awareness about campus sustainability and to improve The Sustainability Report Card Student Involvement category grade was the Sustainability Flash Mob held in the Ball State University Student Atrium on Monday, December 12, 2011 at 11:52 a.m. Eighty-four (84) students composed of 63 ISOM 300 students and 21 ISOM 135 Miller College of Business Honors students joined together to perform a dance routine. During the three-minute performance, 200 informational brochures and 150 recycled paper pads were distributed. The event was exceptionally effective and successful.

*Assurance of Learning in ACTION*

## **PROJECT CHARTERS – A SUMMARY**

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**PROJECT NAME:** SUBSTANTIAL SUSTAINABILITY PROJECTS  
**TEAM NAME:** PROJECT MANAGEMENT LEADERS  
**PROJECT START DATE:** Monday, August 22, 2011  
**PROJECT FINISH DATE:** Monday, December 12, 2011

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### **PROJECT JUSTIFICATION**

**INTRODUCTION** – Colleges and universities around the world are shifting their efforts toward creating a more sustainable campus environment. So it is imperative to understand what sustainability is. Many people think sustainability is just pollution control, recycling, or other specific environmental tasks. However, it is much larger in scope than this. Sustainability means “the long-term maintenance of well-being,” which applies to all aspects of human life, not just the environment. “Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations,” according to United States Environmental Protection Agency. Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment.

Consciousness and responsiveness for sustainability will help us find ways to reduce the dangers of issues that our world faces. According to Lester R. Brown, Founder and President of Worldwatch Institute, “A sustainable society is one which satisfies its needs without diminishing the prospects of future generations.” We are capable of building a sustainable lifestyle that we all deserve. Each of us are responsible stewards of environmental, economic, and social dimensions of all living and non-living things on earth. It is our responsibility to make lifestyle modifications necessary to manage our ecosystem resources.

**THE COLLEGE SUSTAINABILITY REPORT CARD** – The College Sustainability Report Card located at [greenreportcard.org](http://greenreportcard.org) is a website that maintains in-depth sustainability profiles for more than 300 colleges in all 50 U.S. states and eight Canadian provinces. The College Sustainability Report assigns a letter grade for each academic institution in the following categories: administration, climate change and energy, food and recycling, green building, student involvement, transportation, endowment transparency, investment priorities, and shareholder engagement. Based on how effectively each university handles sustainability in each category, a letter grade is assigned to the category. Data is collected through online surveys

and the website information is updated every two weeks. The College Sustainability Report Card focuses on the haven of our future generations – college campuses. College campuses are a good place to plant the seed of knowledge and help students understand what they can do to help their campus become, and remain green and environment friendly.

**BALL STATE UNIVERSITY** – According to [greenreportcard.org](http://greenreportcard.org), the College Sustainability Report Card assigned a C+ to Ball State University (BSU). Although this is considered average or acceptable to some individuals, there is considerable room for improvement. In comparison to other Indiana schools, Ball State University is lacking in its sustainability practices in the categories of student involvement, endowment transparency, and shareholder engagement. Ball State University received an F in endowment transparency, an F in shareholder engagement, and a C in student involvement on the 2011 College Sustainability Report Card. The overall grade reflects poorly on the efforts of Ball State University and could potentially compromise the ability of future generations to meet their own needs, according to [greenreportcard.org](http://greenreportcard.org). Failure to improve these standards could affect all sectors of the economy including energy production and climate economics. As a prestigious university, this should not only be a priority, but our responsibility to set the green movement standard for our students, community, and other universities.

**BALL STATE UNIVERSITY FOOD AND RECYCLING** – Recycling and the use of dining hall resources is a major concern for those who evaluate Ball State University’s sustainability efforts. Ball State University recently received the grade of a B in the area of food and recycling. Currently, 30 percent of the waste in the dining facilities is being recycled. Only four of 15 items that are listed on the survey are purchased from local growers or processors located within 150 miles of BSU. Of these 15 items on the survey, only two are organically grown or produced. One and a half percent of the 34 million dollars spent on food at Ball State University is from locally grown farmers and resources, so obviously this number should be increased to decrease the consumption of mass produced and processed foods.

**BALL STATE UNIVERSITY STUDENT INVOLVEMENT** – The Student Involvement category looks at the level of student participation in sustainability initiatives and support for these activities from the college administration. This includes:

- The existence of active student organizations that work effectively toward expanding sustainability efforts on the campus;
- Sustainability competitions that challenge community members to reduce water or electricity use;

- Integrating sustainability policies and culture into orientation programs for new students;
- Providing opportunities for students to serve as Eco-Reps and participate in sustainability-related work/study jobs.

Student groups, such as the Emerging Green Builders, Students for a Sustainable Campus, and the Natural Resources Club, work to raise awareness of environmental issues on the Ball State University campus. Another positive approach toward being an environmentally friendly campus is the BSU RecycleMania competition. RecycleMania promotes proper recycling procedures within residence halls and dining areas. RecycleMania is a competition between residence floors on campus to influence students to recycle cans, plastic, and paper products. Another positive effort on the BSU campus is the resident assistants' presentations and program for new students and their parents.

***Specific Need for Experiential Projects at Ball State University:*** Unfortunately, the positive efforts on the Ball State University campus are insufficient, only 16% of student population is involved in sustainability activities. An acceptable level of student involvement is 30% or 44%. While RecycleMania is a great program, the competition only focuses on a small portion of university recycling. Students are not well informed or reminded about recycling procedures. The majority of students only recycle during the RecycleMania competition because of the reward incentives and public recognition during the recycling event. Students revert to not recycling after the competition.

Sustainability is not emphasized enough throughout the students' college career. Students can become involved through one of the many clubs that focuses on sustainability. They can also use what they learn in the initial resident assistants' presentations and programs and from classroom lectures to improve the environmental focus around campus.

Currently, students are taking the student survey for the College Sustainability Report Card 2011. However, more students need to participate by completing the survey. Students need to become more involved in the sustainable efforts at Ball State University.

## GENERAL NEEDS FOR THE SUBSTANTIAL SUSTAINABILITY PROJECTS

**Landfills** – Landfill usage is a major component of sustainability in the world. The average American produces over four pounds of garbage and trash daily. Many Ball State students are unaware of the impact their trash usage has on the environment. Landfills do consume space, but a more serious consequence is their environmental impact. These dumps often leach contaminants into nearby streams and lakes, polluting the water supply. They also release methane gases, harbor diseases, and attract wild animals. New “mega-fills” have some controls on these risks, but it is impossible to completely control and prevent the environmental impact of landfills.

**Products** – Another side of sustainability is the use of energy and natural resources to make products. Many people think that they are doing their part for the environment if they recycle as much as possible. While recycling does reduce landfill consumption and the use of natural resources, it is not a comprehensive approach to sustainability. Recycling still requires a large amount of energy use. Furthermore, when an item is recycled, it is not necessarily made into a similar item. For example, many plastic containers are recycled into clothing or building materials. This means that, to make more plastic containers, raw materials (petroleum) must still be used. Another downfall of recycling is that, once new products are made out of recycled materials, energy and resources must be expended to package and deliver those products back to consumers.

**Food Waste** – Typical cooking habits produce much waste and can leave a very large and unnecessary carbon footprint. A cookbook, with helpful tips and information, can help reduce waste and teach students how to use resources effectively. According to a recent CBS News report, the average American family throws out \$1,200 in food each year. The country, as a whole, wastes \$155 billion in food. If people can learn the proper amount of food to buy, then the landfills will not filling up with food waste so rapidly.

**Disposable Society** – The United States has increasingly become a consumerist, “one-use” society. Most citizens are accustomed to purchasing disposable, single-use goods and then disposing of them. Disposal is generally throwing products in the trash or recycling, but either way, the product is only used once or a handful of times. This often occurs with small consumable items, such as plates, cups, cleaning supplies, etc. However, it also often happens with larger products such as electronics, tools, and furniture. This single-use mentality generates a large waste cycle in the United States, and exorbitant amounts of fuel, electricity, and labor are used every year to dispose or recycle these products. Many Americans feel that recycling is a

magical answer. They believe they can purchase and use as many “disposable” items as they want because the products are recycled, but this is not a sustainable approach. To truly reduce landfill, energy, and natural resource usage, the problem must be attacked at the source, which is initial consumption of single- or limited-use products.

***Car Emissions*** – According to the EPA, the average passenger car in a year emits 11,450 pounds of carbon dioxide, 38.2 pounds of oxides of nitrogen, 575 pounds of carbon monoxide, and 77.1 pounds of hydrocarbons. This is a problem for those who attend and work at Ball State University. Another problem with cars commuting is the cost and land area used for parking. According to the American League of Bicyclists, the average cost of a paved surface lot parking spot is \$2,200. In addition, the average cost of creating one space in a parking garage is \$12,500. The cost and the area that these parking areas take up are problems this university faces. The American League of Bicyclists say that 60 percent of the pollution created by automobile emissions happens in the first few minutes of operation, before pollution control devices can work effectively.

## PROPOSED SOLUTIONS

Ball State University earned a C in the Student Involvement category on the 2011 College Sustainability Report Card. If Ball State University intends to improve their sustainability grade in the student involvement category, students and student run organizations must ask themselves, what steps are they willing to take to aid and increase the sustainability efforts of the university?

Ball State University students enrolled in ISOM 300 – Project Management initiated an significant step toward improving the Student Involvement grade. Sixty-five (63) undergraduate students divided into 14 teams executed experiential learning projects that focused on increasing awareness about campus environmental issues, improving the campus landscape, intensifying recycling efforts, and providing information about saving energy. The following summaries are the scope of work for each project team (not group!).

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PROJECT NAME: **OPEN MIC NIGHT**

TEAM NAME: **MUSIC MEN**

TEAM MEMBERS: Jason Fry, Brody Carter, Dehau Liang, and William Washington

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PROJECT SPONSOR: **BALL STATE UNIVERSITY DEHORITY RESIDENCE HALL**

The Music Men hosted an Open Mic Night in DeHority Hall with the goal of improving student awareness about the green movement. During the open microphone event, the Music Men encouraged students to become more conscious about the environment and actively change their behavior in reference to saving our planet. The Music Men’s first attempt at making a noteworthy difference was making decorations for the Open Mic Night event out of recycled items. The repurposed items were displayed during the event as a visual representation of alternative uses for waste. Students reviewed the recycled items and the items served as a motivational tool that will help students embrace environmental sustainability.

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PROJECT NAME: **GREEN CAMPUS INITIATIVE**

TEAM NAME: **S.L.O.T.**

TEAM MEMBERS: Matthew Davis, Michael Amspaugh, Taylor Herman, Thomas Rogers, and Stephanie Wright

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PROJECT SPONSOR: **BALL STATE UNIVERSITY**

S.L.O.T’s mission was to improve the North-end Noyer courtyard for Ball State University student use. The courtyard area was unattractive, unusable, and relatively unknown to the current student body. The area was unappealing because of the pallet of bricks, overgrown landscape, and the blatant electrical units. The courtyard area was also unusable due to the lack of seating and because the area is weather intolerant. S.L.O.T. remedied the situation by using student organizations and volunteers to beautify the courtyard. The S.L.O.T initiative provided a new green area for Ball State University to host sustainability events, as well as give students a place to interact and further their knowledge of the benefits of “Going Green.”

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PROJECT NAME: **OPERATION RECYCLE**

TEAM NAME: **GREEN SCAVENGERS**

TEAM MEMBERS: Logan Swinney, Alex Bird,  
Anthony Hicks, and Katelyn Neary

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PROJECT SPONSOR: **VECTREN ENERGY AND BALL STATE UNIVERSITY**

The Green Scavengers wanted to increase awareness of sustainability by implementing several different project deliverables. The team worked with Vectren Energy Corporation and acquired energy efficient showerheads. The showerhead replaced 131 standard showerheads in Anthony Apartments located on the Ball State University campus. Through Vectren Energy's Conservation Connection program, the water reduction showerheads were provided as a complimentary service for the university. Ball State University will reduce electricity and water usage and lower the monthly energy and water consumption. In addition, the Green Scavengers designed a survey that collected data from Ball State University students about recycling behaviors. Lastly, the Green Scavengers collected used computer paper from BSU professors and students and personally transformed the paper into reusable paper pads.

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PROJECT NAME: **SUSTAINABLE APPETITE**

TEAM NAME: **HOLLY AND THE BUDDIES**

TEAM MEMBERS: Holly Fink, Robert Jones, David Steiner, and Paul Goad

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PROJECT SPONSOR: **GREEN CARDINALS**

Holly and the Buddies compiled a cookbook that contained ecologically friendly recipes. A cookbook is a simple start to saving our earth. The eco-friendly cookbook will help Ball State University students and other individuals, on a limited cooking budget, prepare creative meals that will minimize environmental destruction. One of the greatest ways individuals can impact both the environment and personal health is to cook smart and consume healthy food. The cookbook presents easy to cook recipes, practical tips on how to recycle, reduce our carbon footprint, and reuse resources effectively. Holly and the Buddies prepared a delicious energy saving dessert and conducted a food-sampling affair in the Miller College of Business.

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PROJECT NAME: **BSU BLACKOUT**

TEAM NAME: **THE LOOKERS**

TEAM MEMBERS: Leah Einterz, John Callahan,  
Dustin Hunt, and Zane Smith

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PROJECT SPONSOR: **BALL STATE UNIVERSITY**

The Lookers implemented an interactive and inviting social event that revolved around improving student's environmentally friendly behaviors and habits. A "blackout soccer game" on the Ball State University indoor field turf had three objectives: (1) Inform students and community members about energy reduction tips/habits/guidelines, (2) Persuade participants to act upon the energy consumption guidelines presented at the event, and (3) Introduce an annual sustainability event that will become a campus tradition. The Lookers developed a project plan for a unique event that can be incorporated into the core of Ball State University campus life.

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PROJECT NAME: **GREEN PRODUCTIONS**

TEAM NAME: **TRIPLE JT**

TEAM MEMBERS: Jacob Buck, Jarred Husted,  
Tyler Pickett, and Justin Turansky

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PROJECT SPONSOR: **BALL STATE UNIVERSITY OUTDOOR PURSUITS AND POLICE DEPARTMENT**

Triple JT's project promoted the advancement of a greener campus by inspiring the use of eco-friendly transportation. Triple JT hosted a "Don't Drive, Ride your Bike Day." Teaming up with outdoor pursuits, the Ball State University Police Department, and the patrons of Ball State University, Triple JT facilitated an entire day when students, faculty, and staff used bicycles instead of cars as their primary form of transportation. Triple JT accomplished this vision by having a basketball game at the well-known BSU scramble light where students brought their own recyclable items to shoot into a homemade basketball hoop. In addition to the basketball game, Triple JT prepared posters and handouts that informed people about bicycle safety and bike rentals at Outdoor Pursuits. The Ball State Police Department attended and assisted students with bicycle registration. Over 30 bicycles were registered during the event.

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PROJECT NAME: **GREEN CLEAN**

TEAM NAME: **GREEN ARROWS**

TEAM MEMBERS: Kyle Wilson, Justin Dannemiller,  
Elizabeth Rodriguez and Adam Leagre

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PROJECT SPONSOR: **JOE DODRIDGE, BAPTIST COLLEGIATE MINISTRY**

The Green Arrows aided the Baptist Collegiate Ministry House located just off the Ball State University campus at the corner of Lafollette and Johnson halls with restorations that included major and minor house repairs. To prevent urban decay, the Green Arrows cleaned the interior and exterior portions of the house. Making the needed house repairs lowers the total cost of home ownership, while enhancing the house's value, safety, and appearance. Future costly repairs can be avoided with routine maintenance. Maintenance was also necessary to avoid adverse changes to the property value. The proposed outcome of the project was urban renewal that will revitalize the Baptist Collegiate Ministry House and the entire neighborhood.

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PROJECT NAME: **SIDELINE PICK-UP**

TEAM NAME: **G<sup>2</sup>**

TEAM MEMBERS: Amber Worrick, Eli Smith,  
Nicholas Genova, Andrew Martin, and  
Mohammed Aljughayman

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PROJECT SPONSOR: **PHILIP CLAY, Athletic Grounds and Facilities Manager**

Team G<sup>2</sup> hosted a sustainability party to raise awareness about the green movement. Students who attended the event were required to bring ecofriendly items to the party. The ecofriendly items were properly recycled. G<sup>2</sup>'s second solution for solving our environmental problems was the exhibition of sustainability issues at a BSU volleyball game. An information table was set-up during a Ball State University women's volleyball game to distribute handouts that contained information about sustainability. The handouts were distributed on the Ball State University campus at heavy trafficked areas during the lunch hours in selected dormitories and in the core of the BSU campus, the Student Atrium.

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PROJECT NAME: **H<sup>2</sup>OVERHAUL**

TEAM NAME: **TEAM AQUAHOLICS**

TEAM MEMBERS: Michael Christopher, Davyd Jones,  
David Riddell, Garrett Weiler, and Lavinia Jones

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PROJECT SPONSOR:

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Team Aquaholics introduced alternatives to single use plastic bottles throughout campus. In addition, Team Aquaholics promoted the use of refillable water bottles among the student population, especially in resident and dining halls. The ultimate objective was to implement drinking fountains paired with water bottle filling stations around campus to increase the use of reusable water containers by students and the entire BSU community. Finally, a slide show presentation was delivered to local elementary school students to prompt recycling practices.

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PROJECT NAME: **BLAST**

TEAM NAME: **PENNIES**

TEAM MEMBERS: Cullen Miller, Nicholas Aroleo,  
Jeffrey Griton, and Elizabeth Stein

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PROJECT SPONSOR: **SIGMA PHI EPSILON**

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Pennies implemented a recycling program at the Sigma Phi Epsilon fraternity house. Fraternity members were encouraged to turn off lights in the house and recycle. Pennies constructed recycling bins and made signs to remind fraternity to recycle. Energy saving practices and recycling mandates were announcements at the fraternity's chapter meetings. All of their efforts were designed to develop an awareness of how small changes make a big environmental change. Aluminum, glass, and plastic were properly recycled. Omni Source, a recycling company, purchased the aluminum. Funds from the sale of the aluminum was used to purchase green cleaning products to use at the fraternity house.

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PROJECT NAME: **GET THEM TO THE GREEN**

TEAM NAME: **GREEN DYNASTY**

TEAM MEMBERS: Lacey Arvin, Camrie Dennis,  
Erika Hess, Tiffany Shivers, and Adam Hostetter

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PROJECT SPONSOR: **COMPUTER TECHNOLOGY STUDENT ORGANIZATION**

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Green Dynasty's "Get Them to the Green" project consisted of positioning an informational booth at the annual Tech Bash event hosted by the Ball State University's Computer Technology Student Organization (CTSO). The overall objective of the Tech Bash event was to raise awareness about technology recycling. The informational table educated students about the importance and benefits of practicing sustainability techniques. Green Dynasty supplied information about how to make computers more energy efficient, displayed craft items made from outdated hardware materials, circulated instructional sheets about how to construct craft items from old hardware, and distributed a brochure that contained general sustainability tips for students to implement on campus.

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PROJECT NAME: **TRASH BASH**

TEAM NAME: **DIVERSE DEBONAIRS**

TEAM MEMBERS: Larry Davidson, Brittani Heald,  
Muhammad Alamro, Jonathan Reding, and Candace Williams

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PROJECT SPONSOR: **Richard Ziuchkovski, Ph.D. (NREM)**

Diverse Debonairs hosted a Trash Bash event to inform BSU students about trash generation and its environmental impact. The Diverse Debornairs educated students on how to reduce the creation of waste by purchasing reusable products instead of disposable ones. Discussions centered around keeping unwanted items out of the waste cycle by reusing them in numerous ways, such as “handing down” to another person or using for a different purpose. A series of games were played that involved using trash to illustrate the vast amount of waste moving through our society. During the games, a visual representation of the trash illustrated how much unnecessary trash is produced by Ball State University students. Durable, reusable products replaced all of the trash used during the games. The winners of the games were rewarded prizes. The prizes were inexpensive, commonly available products that substituted disposable single-use items. The prizes were also possible solutions to the waste creation problem.

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PROJECT NAME: **ORGANIC STYLE**

TEAM NAME: **GREEN MACHINE**

TEAM MEMBERS: Laura Chappell, Andrew Glass,  
Andres Monroy, Evan Strum, and Yongxiao Chen

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PROJECT SPONSOR: **WASSON NURSERY**

Green Machine hosted a fundraiser event that sold hot chocolate and prepackaged goods, such as cookies and crackers. Green Machine used the money raised from the fundraiser to plant a tree to improve the landscape of Ball State University campus. During the fundraiser, the team also provided students and faculty with a flier that had information about how they can decrease energy use. The flier also contained information about purchasing food locally and decreasing energy use. Green Machine encouraged students to participate in sustainable lifestyles by giving them nformation about recycling procedures.

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PROJECT NAME: **GREEN HERE NOW!**

TEAM NAME: **GREEN MONKEYS**

TEAM MEMBERS: Hilary Thevenot, Carlarans Coles,  
Michael Bradley, Stephen Higgins,  
and Breeanna Nelson

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PROJECT SPONSOR: **WHITNEY LEWIS**

The goal of the Green Here Now! Project was to raise awareness about excessive waste on campus and the need for recycling. Green Monkeys hosted an event at Be Here Now, a bar in the local village near the Ball State University campus. The Green Monkeys accepted a two-dollar donation from attendees and the proceeds from the event were used to purchase energy saving light bulbs. Forty (40) Incandescent Equivalent, ENERGY STAR qualified light bulbs were purchased and distributed to Ball State University students and faculty. The light bulbs are designed to save approximately \$6 a year in electricity cost per light bulb and save more than \$40 over its lifetime. The project sponsor, Be Here Now, lowered the price on all drinks served in recyclable containers throughout the event. After the event, all the bottles and cans generated during the event were taken to a local recycling facility.